

LIBRARY OF CONGRESS
1965
MAY 13 1905
CHICAGO, ILL.

THE AUTOMOBILE

WEEKLY

NEW YORK—SATURDAY, MAY 13, 1905—CHICAGO

10 CENTS

WINTON



"I have purchased a Winton Model C, a little red fellow, with which I am having lots of fun and a great deal of satisfaction; and I can truthfully say that for the size, horse power, and price, I do not think anything on the market to-day can touch it.

Very truly yours,

Philadelphia, April 24, 1905.

(Signed) CHAS. J. SWAIN."



The only complaint against 1905 Wintons is that they are too good for the price. The tradesmen who are saying it simply mean that 1905 Wintons are so supremely first in quality that the fact cannot be disputed.



FIVE MODELS

16-20 to 40-50 H.P.
\$1,800 to \$4,500

Catalog No. 5 describes all models
in detail

THE WINTON MOTOR CARRIAGE CO.

(Member A. L. A. M.)

CLEVELAND, OHIO, U. S. A.

Branch Houses in New York, Chicago, Boston, Philadelphia and London. Sales Agencies Everywhere

PERFECTED DUNLOP

EASY TO REPAIR

RESILIENT

FAST

ECONOMICAL

CURED IN OPEN HEAT

TOUGH

EVERLASTING

UNEED THEM

NO BOLTS

LUGS NOT USED

ONLY TIRE

DUNLOP PERFECTED

THE HARTFORD RUBBER WORKS COMPANY

Offices and Factories Nos. 1 and 2, Hartford, Conn.
Factory No. 3, New Brunswick, N. J.

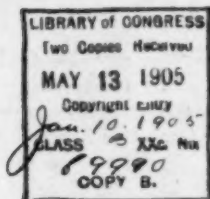
BRANCH HOUSES:

Boston
New York
Philadelphia

Cleveland
Chicago
Buffalo

Detroit
St. Louis
Minneapolis

Denver
San Francisco
Los Angeles



THE AUTOMOBILE

VOL. XII.

NEW YORK—SATURDAY, MAY 13, 1905—CHICAGO

No. 19

A LITTLE TRIP OUT FROM NEW YORK.

By HOLLIS W. FIELD.

TWENTY miles up the Hudson from the southern limits of Central Park; 15 miles across country, east by south-east to the shimmerings of the Sound; thence homeward along the jagged rims of blue water which guard the purple horizons of Long Island—and the New Yorker all in a summer's day has more than an idea of the beauties of nature filling her lap full at the very doors of the metropolis.

But only the automobile is the "open sesame" to it all. Given this modern equip-

sink around him; the white cloud ship in the blue sky and the black cloud ship in the blue water of the Hudson; the sunlight shimmering in the purple distances, and the odors of pastures and fields and water-reaches racing to his nostrils—shall the New Yorker of this twentieth century settle himself at home in slippers to read of fairy wands and of the legends that once wrapped the simple Dutchman of New Amsterdam into witched awe and silence?

In no other metropolis of the world, per-

sations toward which no other form of transportation lends as does the automobile.

Sixty miles, which may string into them the Riverside Drive, the Palisades near Yonkers, Dobbs Ferry, White Plains, Mamaroneck, New Rochelle, the Bronx and home again—these may be not more than the incident of an afternoon, yet beside which the horse-driven vehicle becomes a local plaything, to be overtaken and passed and left behind each in its little hour and its little



MAGNIFICENT VIEW UP THE HUDSON RIVER FROM LAFAYETTE BOULEVARD IN THE UPPER END OF MANHATTAN ISLAND.

page of a modern Arabian Nights and the metropolitan may add another ten miles to his river reaches, another ten to his hill country toward the Sound, and still home again to find his summer's day still burning in the western afterglow, while somewhere scattered to the winds of the wide reaches behind him, the jading cares of a crowded city week lie forgotten.

With the white road swimming from under his whirling tires; the dip and swing and plunge of his machine rocking him as the landscapes drift and wheel and rise and

haps, is the metropolitan afforded the quick transit into the silences and beauties of nature that are at the doors of the New Yorker. Two hours from his garage, while observing all decorous speed as exacted by law, the motorist may turn his camera upon a vista which, so far as the camera discloses to the observer, could have been in the unapproachable fastnesses of a primeval country. Hills, valleys, rivers, brooks, fields, forests, gardens and always the white roadways that are such incentive to the man at the steering wheel—these are his compen-

neighborhood, a mere stranded effigy of motion having its small orbit within the great elliptic of the automobile. Six hours are giving to the automobile driver a perspective of nature that three days might deny the lover of the horse.

Beyond the great pile in memory of Grant in Riverside Drive—beyond the new spruceness of a ruined Harlem—into the dips and sweeps and serpentines of Lafayette boulevard to the heights from which the Spuyten Duyvil curve of the Hudson lies in the distance, a foreground for the receding hills—

long before this vista opens to the automobilist, a dozen horses have been left to their petty neighborhoods, mere incidents in passing. Yet for the man at the steering wheel the drive has only begun. He is in only the fringes of the historic borderland of Gotham, and beyond him at every turn of his wheels for sixty miles the new and the old may change and counterchange in never ending interest.

Everywhere one may read the changes that have come through the generations where man has touched, and side by side with these he may read in the everlasting rocks that jut from ridge and hill the indestructible records of nature herself. On a hill at the right hand may be a smart, new palatial home, laid out with all the art of the landscape architect. The hard, white road itself has eaten into the ridge, perhaps a dozen feet in depth. A young forest has found foothold down a slope and over the crumbling walls that once were fences. Perhaps the ruins of a fireplace and chimney

even blur of another machine as it spurns the road. And here, where the tourist will, he may turn on his power and leave the nearest mile behind him as fast as the law allows.

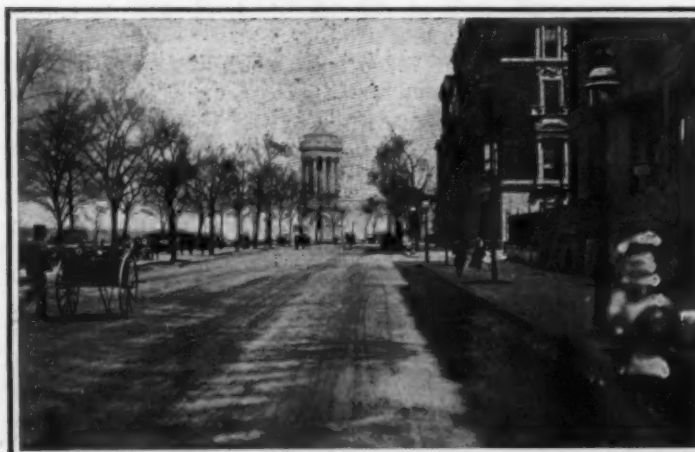
Leaving the Hudson at Dobbs Ferry in the direction of White Plains, the backbone of the peninsula between river and Sound is crossed. From the Sawmill River to the valley of Troublesome Creek does it, but there are easier things, it being greatly easier to run at lawful pace from White Plains down the old Mamaroneck road. The trolley sets the pace for the conscientious driver, and for miles at the roadside a brook chatters and races with trolley and car alike, as if conscious of its own record in the long run of the seasons, year after year.

From the reaches of the Mamaroneck road, with the glint of the sun in the brook, the green of the hillsides to right or left, and overhead a great henhawk sailing in wide circles just under a filmy cloud, the

movement of the hand is giving the time to the next officer in waiting at the end of a measured stretch down the road.

From this old Boston Post Road one may see the Sound at every turn, and in one place at least he may have an unusual view of a grouping of yachts in extemporized dry docks. These little vessels are floated up a waterway into a little meadow lying under the road, and from this canal are skidded high and dry into winter quarters. A camera view from the road is a novelty.

Pelham, the Eastchester road, wide and smooth, and the still wider and smoother Pelham Parkway turning westward toward the zoological gardens of Bronx Park are attractive to more than automobile drivers. The bicycle and the motor-cycle, the horseman and the carriage driver frequent them. In the parkway the figure of the first metropolitan policeman appears and the figure on foot is duplicated in the mounted officer and the bicycle patrolman. But these officers



Soldiers' and Sailors' Monument on Riverside Drive.



Grant's Tomb on Riverside Drive—Sightseeing Auto on Right.

lie overgrown with creepers just beyond. But more eloquently mute of the past are the apple trees of the century-old orchard, which in spite of all still green and blossom with the spring and bear their gnarled harvests.

Out of these vistas of the long ago the motorist turns suddenly and materially into the present. Yonkers as an incident about noon on a summer Sunday is something to be taken seriously and pleasurably. In more places than one a good dinner may be found, cooked to a turn and served to a nicety. In the hour which the tourist spends at the table, the passers-by in the streets find entertainment at the curbstones, examining his car critically or otherwise. Yet nowhere will the civil driver get an uncivil reply to a civil question.

"Slow down to 10 miles an hour" is one of the significant signboards along the roadsides. Yet it is calm and dispassionate, and for the most part where these occur there is compensation in the accompanying mile of roadway made smooth as a floor by brick or macadam. Again, where the roads may be as smooth and wide and inviting, there may be not a house or mark of habitation, or

motorist may catch the subtle spirit of the woods and stream and attempt a little idling of his own. There are spots to spare for the purpose.

Larchmont is the gateway to the stretches of the old Boston Post Road. From it the blue waters of the Sound and the hills of Long Island come into view, the island suggesting a continent beyond the glitter of its whitecaps running before the wind. In this road the motor cars of the route are multiplied by twos and threes over the numbers seen elsewhere on the run, and here, more than anywhere else, the police officer is in active evidence. New Rochelle gives evidence of local jealousy for her vitrified brick paving that floors the old Post Road, and on a summer afternoon of Sunday the roadway is darkened with villagers gathered and grouped and scattered in anticipation of a "pinch."

"How many have you got to-day?" is a question shouted to the officer on the roadside, as if he were out in some new and exciting form of sport, and as he obligingly holds up two or three fingers as numerals, the questioner recognizes that the same

lack the expressions of excitement and official eagerness that may be seen in some of the village guardians of the road; rather, the metropolitan patrolman looks his fear that someone may force him to interpose between the law and the lawless. The zoo, Jerome avenue to Central Park, and through the Park as one will, complete a run that makes an inviting day.

A score of towns and villages and hamlets have been threaded on these strings of road for sixty miles, a trip that might exhaust five changes of horses on a stage trip of two full days. Yet this has been little more than the stretch of an afternoon. A dozen other trips to be made in a day are easy out of New York in those times when "the wind down the river is fair."

But they belong to the automobile driver. No other mechanism makes the touring party along these routes possible.

By a curious coincidence the foregoing narrative of a little trip out of New York was written shortly before the announcement of the route to be followed on the occasion of the second annual run of the me-



Wooded Slopes of Lafayette Boulevard.



The Bronx Boulevard a Favorite with Drivers.

chanical branch of the Association of Licensed Automobile Manufacturers, which occurred May 5. The route followed on that run was almost identical with that discussed by our correspondent, except that the route was covered by the latter in the opposite direction to that taken by the licensed engineers.

The similarity in the routes followed makes the official map issued for the li-

censed engineers' run a safe guide for any who might desire to go over the route discussed in our leading article. For the distance covered it is without doubt the most picturesque and interesting circuit in the vicinity of New York, and we doubt if it is rivaled by any similar route as close to any other large city in which automobilists are to be found.—EDITOR'S NOTE.

sequently a good representation of the technical interests of the Association on hand from all over the automobile building sections of the country to take seats in the twenty odd cars that were drawn up at the curb at Broadway and Seventy-sixth street. So many, indeed, that probably no one present were personally acquainted with all the others, and to bring about this desirable result each member and guest was given a little numbered badge of ribbon to pin on his coat, each number corresponding to the number set against his name on the printed program which had been handed around. George H. Day, general manager of the Licensed Association, acted as master of ceremonies.

Before noon the leading car, with a little waving pennant, tooted a few blasts on its horn and swung into place at the head of the line. The route selected was out of the city by way of Eighth, Seventh and Jerome avenues, and northward to Fordham, thence northeastwardly to the shore road on Long Island Sound as far as Mamaroneck, and from there across country to White Plains and Elmsford, the furthest point out; striking home through Ardsley to Dobbs Ferry, and following the course of the Hudson River to Yonkers. At Yonkers the course lay away from the river to Van Cortlandt, returning to the splendid

Outing of the A.L.A.M. Constructors.

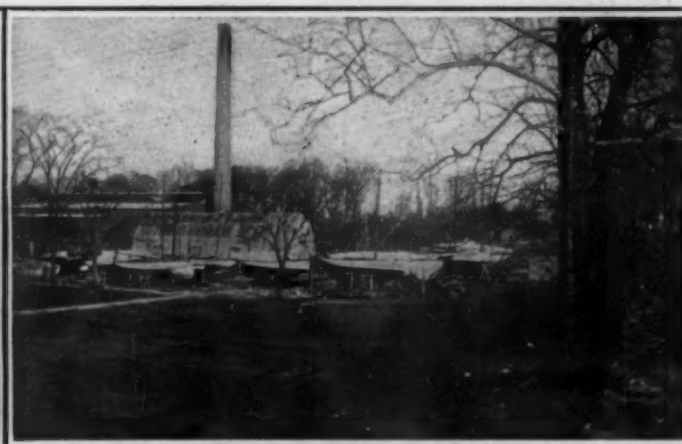
IN the collection of runs, tours and contests, which is now part of the history of automobiling in America, it is doubtful if any more thoroughly enjoyable affair is recorded than the second annual run of the Mechanical Branch of the Association of Licensed Automobile Manufacturers, which took place on Friday, May 5. Starting seventy strong from a rendezvous at one of the upper Broadway garages in New York City, the members and guests covered a 60-mile circuit at a law-abiding gait, getting back to the garage before nightfall had made lamp lighting necessary. In the meantime they had viewed the picturesque scenery lying to the north of New York City, had made each, perhaps, a score of new acquaintances, had ridden in many

cars of reputation, with some of which they had no previous personal acquaintance, had enjoyed a delicious luncheon in the famous club-house on Travers Island, and viewed the luxurious and interesting nautical headquarters at Larchmont—all with the accompaniment of bright skies, a sweet, cool wind, and roads of excellent surface, even if they were just a trifle dusty.

Last October the first run of the sort was held at about the time of the Vanderbilt race, and was so overshadowed by that great event that it attracted little public attention. The start then made, however, proved the great interest which the run could create, and when the announcements of this year's event were sent out few declinations were received. There was con-



Picturesque Creek on the Roadside Between White Plains and Mamaroneck.



A Glimpse of Yachts in Winter Quarters Near Larchmont.

river view again at the Lafayette Boulevard, and down Riverside Drive to Seventy-sixth street and the Broadway garage again.

For the guidance of the drivers the program contained a description of the route, which is here reprinted for the benefit of any who desire to go over the same beautiful roads on their own account.

Road Directions.

Start from the garage at SEVENTY-SIXTH STREET and BROADWAY. Start east on SEVENTY-SIXTH to EIGHTH AVENUE. Then left or EIGHTH AVENUE to ONE HUNDRED AND TWELFTH STREET. Turn right into ONE HUNDRED AND TWELFTH STREET to SEVENTH AVENUE. Up SEVENTH AVENUE to ONE HUNDRED AND FIFTY-FOURTH STREET. Turn left on ONE HUNDRED AND FIFTY-FOURTH STREET one block. Then to and over McComb's DAM BRIDGE to JEROME AVENUE. North on JEROME AVENUE to ONE HUNDRED AND EIGHTY-NINTH STREET. Turning right into ONE HUNDRED AND EIGHTY-NINTH STREET down the grade, turning left in WEBSTER AVENUE. Turn right around

FORDHAM STATION, then over bridge over R.R. track into PELHAM AVENUE. Follow up PELHAM AVENUE through BRONX PARK past sign on right reading, "Turn here for Woodmanston Inn."



GEORGE H. DAY, MANAGER A. L. A. M.
Master of Ceremonies.

Through BRONX PARK to PELHAM PARKWAY over viaduct over railroad, passing right by sign, "Parade Grounds, &c.," and also sign "Pelham Athletic Field." (Caution): Speed law enforced here, be on lookout for police trap. Follow Parkway to and over Long Bridge (drive slow); pass "Pelham Bridge Hotel" on left and farther on Hunter Island Inn on your left. Continue on same road to sign, "N. Y. ATHLETIC CLUB, &c."

Turn right into Club grounds to Club House. [The tourist who is not a club member will of course continue on past the sign mentioned.—Ed.]

On leaving Travers Island turn right into PELHAM ROAD farther on over brick pavement to CENTRE AVENUE. Turn left to Centre Avenue, follow Centre Avenue turning right to MAIN STREET, NEW ROCHELLE. Follow Main Street into BOSTON POST ROAD to LARCHMONT. (Caution): Speed limit in

Larchmont 8 miles per hour and law strictly enforced. Turn right into LARCHMONT AVENUE. Turn left into LARCHMONT YACHT CLUB GROUNDS, where short stop will be made. [Same note applies here as in preceding paragraph.—Ed.]

Leaving Larchmont Club House grounds returning by same road, turning right into BOSTON POST ROAD. Follow trolley track turning left into MAMARONECK AVENUE under R. R. track. Then right (still Mamaroneck Avenue) following telegraph poles.

Follow Mamaroneck Avenue turning right at the fork with trolley to White Plains. White Plains Storage and Repair Station on the left.

Turn left at Smith & Roemer's drug store (speed 8 miles per hour) follow trolley through White Plains, crossing railroad tracks (caution). At "PFANDER'S HOTEL" turn right, continue straight ahead passing Fair Grounds and later THOS. B. WARD'S ROADHOUSE. Follow trolley (dirt road); pass ELMSFORD HOUSE. Turn left,

with ELMSFORD STATION on your right. Follow winding road along valley with wooded hills beyond at your right, passing old barn on your right.

Turn right at watering trough. Pass ARDSLEY STATION on left over railroad. Turn right onto ASHFORD AVENUE to WARBURTON AVENUE. Turn left onto WARBURTON AVENUE, follow main road (observing speed limit of 8 miles) to and through DOBBS FERRY. Then down 25 per cent. grade into HASTINGS; over viaduct past AMACKASSIN INN on your right.

Follow WARBURTON AVENUE to MANOR HALL in YONKERS, turning left, then right, passing FULLER & WALSH'S AUTO STATION on your left through YONKERS to BROADWAY. Follow trolley past HOTEL DE VAN CORTLANDT.

Turn left over trolley track following winding road into VAN CORTLANDT PARK over railroad track (caution look out for trains). Up grade keeping VAN CORTLANDT to right into MOSHULU AVENUE, down 20 per cent. grade past VAN CORTLANDT DEPOT to VAN CORTLANDT AVENUE to ALBANY ROAD. Turn right into BAILEY AVENUE, turning right over railroad track (caution) and 50 feet farther on over second railroad track (caution) to TWO HUNDRED AND THIRTIETH STREET. Cross ship canal bridge, road follows under the new viaduct

to KINGSBRIDGE ROAD to LAFAYETTE BOULEVARD; old stone church at your right. Follow LAFAYETTE BOULEVARD to BROADWAY to ONE HUNDRED AND FIFTY-FIFTH STREET into AMSTERDAM AVENUE to ONE HUNDRED AND FORTY-FOURTH STREET to HAMILTON PLACE to BROADWAY. Turn right then left over viaduct passing GRANT'S TOMB on left. Follow RIVERSIDE DRIVE to SEVENTY-SIXTH STREET. Turning left into SEVENTY-SIXTH STREET to BROADWAY and starting point.



SKETCH MAP OF ROUTE OF RUN.
The figures within the small circles indicate the serial numbers of the transfer stations. Mileages indicated by arrows.

to KINGSBRIDGE ROAD to LAFAYETTE BOULEVARD; old stone church at your right. Follow LAFAYETTE BOULEVARD to BROADWAY to ONE HUNDRED AND FIFTY-FIFTH STREET into AMSTERDAM AVENUE to ONE HUNDRED AND FORTY-FOURTH STREET to HAMILTON PLACE to BROADWAY. Turn right then left over viaduct passing GRANT'S TOMB on left. Follow RIVERSIDE DRIVE to SEVENTY-SIXTH STREET. Turning left into SEVENTY-SIXTH STREET to BROADWAY and starting point.

FEATURE OF THE RUN.

The feature of the run was the transfer system, by which each participant got a chance to ride in many different types of car other than the one he was professionally connected with. There were ten transfer stations selected and indicated in the program, and the copy of this program handed each participant contained a list of cars he was to ride in. Each car had a number attached at back and front, and this corresponded to the number of the assignment at each transfer, so that on coming, say, to the sixth transfer the occupant of a car had only to glance at the space opposite that transfer on his program and he would find there the number of the car he was to change into. The



GETTING READY TO START AWAY FROM NEW YORK ATHLETIC CLUB'S GROUNDS ON A. L. A. M. RUN—LOOKING TOWARD THE MAINLAND.



CARS CONTAINING MEMBERS OF THE MECHANICAL BRANCH A. L. A. M. IN GROUNDS OF COUNTRY HOUSE OF NEW YORK ATHLETIC CLUB AT TRAVERS ISLAND—LOOKING TOWARD LONG ISLAND SOUND.



SNAP SHOT OF THE PARTICIPANTS IN THE LICENSED ASSOCIATION RUN CHANGING CARS AT A TRANSFER STATION.

make of the car, the horsepower and the number of cylinders were particulars added for ready reference.

There was much good-humored banter at each of the stopping places, and some half expressed fears that a mixup might occur. But there really wasn't the least confusion, and the changes took a surprisingly short time to make. At the word to start the cars were sent off several hundred feet apart by an official who took his seat in the last car, the repair wagon containing a complete kit of tools bringing up the rear. It was remarkable that in the entire day not a single puncture occurred, and there were only two stoppages for slight mechanical trouble.

On the way out a halt was made at the New York Athletic Club's country house at Travers Island, where a delicious luncheon was served in a glass encased room by the waterside, and after this an official photograph of the participants was made, and is here reproduced.

Another stop was at the Larchmont Yacht Club, where the members were taken through the trophy decorated rooms, and enjoyed for a brief while the comfort of

the great open fireplace, for it was cool out in the fresh breezes from the Sound.

On the way home the only mishap of the day occurred, when the driver of a Pope-Toledo car turned a sudden corner, nearly ran off a steep bank, and, in trying to get on the road again, rammed an electric-light pole. No one was seriously hurt, though the passengers in the car were rather shaken up. The turning was a bad one, and a great street excavation blocked the roadway, and no warning sign had been put up by the town authorities.

Aside from its interest to the participants, the run had a lot of attraction for the man in the street. As the well filled procession of cars passed through the city thoroughfares and along the country roads it created favorable comment, and was an object lesson in the reasonable and considerate use of the automobile. The entire program was carried out in a fine, manly fashion that reflects a lot of credit on the organizers.

Following is a list of those who participated: H. W. Alden, assistant engineer, Electric Vehicle Co.; Roy T. H. Barnes, guest, Hartford, Ct.; E. E. Bartlett, guest, New

York; C. Edward Beach, guest, Hartford, Ct.; R. M. Beck, chief engineer Pope Manufacturing Co.; Sidney B. Bowman, president S. B. Bowman Automobile Co.; S. W. Bowman, guest, New York; Marcus I. Brock, sales manager The Autocar Co.; M. J. Budlong, president Electric Vehicle Co.; John S. Bunting, superintendent Smith & Mabley Manufacturing Co.

J. M. Carples, office of the A. L. A. M.; Lewis S. Clarke, president The Autocar Co.; Charles Clifton, president A. L. A. M.; Howard E. Coffin, engineer Olds Motor Works; H. F. Cuntz, patent department A. L. A. M.

A. M. Day, guest, New York; George H. Day, manager A. L. A. M.; S. T. Davis, Jr., president Locomobile Co. of America; L. M. Dieterich, engineer Waltham Manufacturing Co.; P. T. Dodge, guest, New York; H. F. Donaldson, guest, New York; M. L. Downs, office A. L. A. M.; W. C. Durant, Buick Motor Co.

J. B. Eentz, guest, Philadelphia. Herman G. Farr, secretary and superintendent Knox Automobile Co.; David Ferguson, mechanical engineer The Autocar

(Continued on page 593.)



GROUP OF THOSE WHO TOOK PART IN THE RUN AT THE NEW YORK ATHLETIC CLUB'S COUNTRY HOME.

Points on Propeller Shaft Drive.

By RENE M. PETARD.

IN the statistics of the last Paris automobile salon it was observed that the cardan and propeller shaft drive shares with the chain in about equal proportions the favor of the French builders.

It might be interesting to give a few complimentary details concerning the subject of these drives, showing what the difficulties in their application may be and how they are overcome or slighted. In the chain driven cars, few changes are found this year. We find everywhere the bevel gear driven differential with countershaft held by bearings on the frame. The tendency is to provide for end motion in these shafts by providing them with square ends with rounded corners sliding in square sleeves so as to allow end play and a slight angular displacement, the rounded square shaft acting as a small angle universal joint. The chain driving strain is in a few cars taken up on the bearing, instead of outside, as on the Thomas Flyers in America.

DIFFERENTIAL IN SEPARATE CASING.

In a few cars, the Delahaye, for instance, the differential is carried in a separate casing, this disposition being made necessary by the length of chains with modern side-entrance bodies. The frames being very long, the chains also would be too long, and when slack, would whip too much, and too easily jump the teeth of the sprockets. It then becomes necessary to shorten the chain by bringing the countershaft further back, driving it from the change speed gear case by a short propeller shaft with universal joints. In the Mercedes this complication is avoided by a stiff cast aluminum casing uniting the differential case and the gear box, the shaft running rigidly through it.

The sprocket on the wheel is generally carried by a drum, inside of which it is convenient to install an expanding brake, the great advantage of this drum being to prevent the chain from getting mixed in the wheels in case it breaks, as it used to do with the old "pegs in the spokes" system.

CARDAN SHAFT TRANSMISSION.

In the cardan shaft transmission, there is noticeable a more general use of shock absorbers. Many engineers long criticised the propeller shaft drive for its inflexibility, while the chains under a sudden strain "give" a little to recuperate afterwards, so that the shock is at least partly absorbed. The propeller shaft, on the contrary, is more rigid and inelastic, and it transmits every shock it receives to the bevel gears and differential teeth, straining them to a very great extent.

Outside the engine shocks, the propeller shaft is submitted to a number of strains of different natures, which the designer

must carefully consider, and which go to make it a difficult member to design.

In case of transverse vibrations of the car, which vibrations are continually repeated even on the best roads, one of the springs plays, while the other lifts up that side of the car, so that the rear axle has a tendency to turn around the axis of the bevel pinion. The bevel gears will consequently receive at first a strain in a given direction, for instance, in the rotation direction of the engine, and when the car comes back to position a strain in the opposite direction. The teeth will consequently be overworked.

SHAFT SHOCK ABSORBER.

This has caused an outlook for a shock absorber. Several years ago, M. Louet, the maker of the French spiral drive car, made a rubber disk which he interposed between the gear box and the cardan shaft. At the time of the appearance of this device, it did not strike the other makers as a necessity, and it is only of late that they are on the outlook for similar appliances.

What M. Louet did with a rubber disk, they have tried to do with springs, coil springs being suitable for the purpose. But the problem presented a few difficulties set up by the vibration of the springs. In some cases the rate of vibration of these springs approaches, and sometimes equals, the rate of the machine. In consequence this synchronism causes the shocks to be multiplied instead of decreased, sometimes five times in intensity, and where the original shock would have easily been absorbed by the teeth, this sudden augmentation of the strain causes the teeth to give way. It has thus been found necessary to come to short, stubby and stiff springs with a short period of vibration, such as used by Gillet-Forest, Renault and others.

THRUST ROD LOCATIONS.

Another detail in the cardan drive is the necessity for taking up the thrust, inasmuch as the driving effort of the wheels cannot be transmitted through the springs without impairing greatly their qualities of resiliency and sensitiveness. A few makers, well advised, place thrust rods close to the wheels so as to take the torsional effort off the axle; others place them at the differential casing.

On the Renault car the disposition of these rods is especially noticeable. The rods are two in number, one coming from the top and one from the bottom of the differential casing. On starting the car, the tendency of the differential casing is to revolve in the opposite direction to that in which the wheels are rotating. Consequently, if the wheels are rotating ahead, the casing will tend to rotate backwards. This will put the upper bar under tension

and the lower one under compression. The opposite takes place when the brakes are applied. This division of the strains allows the rods to be made very light, as one always works under tension while the other is constantly subject to a bending stress.

SINGLE AND DOUBLE JOINTS.

As a rule, the drive possesses two universal joints; one, near the gear box; the other, near the axle, a sleeve being provided to allow for variations in length. One single joint is used on several cars. An objection to the single joint propeller shaft is that if the shafts on both sides of the joint are not in a straight line—which happens when the rear wheels rise or fall in relation to the frame—the speed of rotation of the driven end of the shaft is not constant. To put it differently, when the shafts at both sides of the joint make an angle with each other, if the end of the shaft next the gear box is driven at a constant speed, the shaft between the universal joint and the back axle will revolve faster at some points of each revolution than at others.

With the propeller shaft drive the wheels very seldom have any camber. The axle is straight and the driving shafts run straight through the spindles which are in a line with them. The wheels are at right angles, consequently without camber.

M. Hautier has, however, procured a patent this year in which he uses a rear axle with cambered wheels. The axle is solid, but the wheel spindles are sloped downwards towards the outside. The driving shafts run straight through the spindles and their inner ends meet at an angle in the center of the car, a universal joint being provided on each side of the differential, which is bolted above the solid axle.

Is the two-piece rear axle, which is usual, a strong construction? Many makers believe that it is not. Ader uses a carrying axle straight and solid. Around this axle are the two half lengths of tubes which drive the wheels from the differential gears. This construction necessitates a differential of the spur gear type, and also large, and consequently heavy, shafts or tubular sleeves, but is otherwise a satisfactory solution of the problem.

SCREW AND WORM GEAR.

With M. Louet, the cardan shaft drives the differential through screw and worm gear. For the touring cars there is no gear reduction at the drive and the threads are at 45 degrees pitch, so that the drive can be reversed to a certain extent; that is, the car can be pushed back and forth on the floor, the gear driving the screw. On the heavy cars, there is a gear reduction and the drive is not reversible.

From this it appears that the cardan can be made as flexible as the chain, and being less likely to give trouble when properly designed, it is the general opinion that it will make further progress this year in outclassing the chain.

Peerless 1,000 Mile Non-Stop Record.

Made by Wridgway at Brighton Beach Track, New York, in
25 Hours, 50 Minutes 1 Second—New Figures
for 100 to 1,000 Miles.

BY driving a 24-horsepower Peerless car a thousand miles in 25 hours 50 minutes 1 second—an average speed of nearly 39 1-2 miles an hour—on the Brighton Beach track at Coney Island, Charles G. Wridgway established a new non-stop track record for that distance and incidentally for all distances from 100 miles to 1,000, and also gave an exhibition of physical endurance that will take a good deal of beating. Starting at 9.38 A.M. on Friday, May 5, he retained control of the car until 11.28 o'clock on Saturday morning, when the thousand miles were completed. During the stops for gasoline and water, during which the motor continued to run, the driver stretched himself, ate a little and drank a little and then started again on the monotonous whirl. Many times wheels were changed to anticipate tire troubles; but these were precautionary measures, and no tire mishaps occurred. The engine ran well throughout the trial, giving little trouble, and was ready to start promptly when cranked a few minutes after the conclusion of the record-breaking run.

The machine was a regular 24-horsepower Peerless touring car with the touring body removed and replaced by two seats for driver and mechanic, and a large box in the rear, in which tools and batteries were carried. Four storage batteries were wired up and furnished all the ignition current used throughout the trip, as well as current for the little lamp on the speed meter. Only once was it necessary to change a spark plug, and even then the engine was not stopped, compression being relieved by holding the exhaust valve off its seat until the plug was changed.

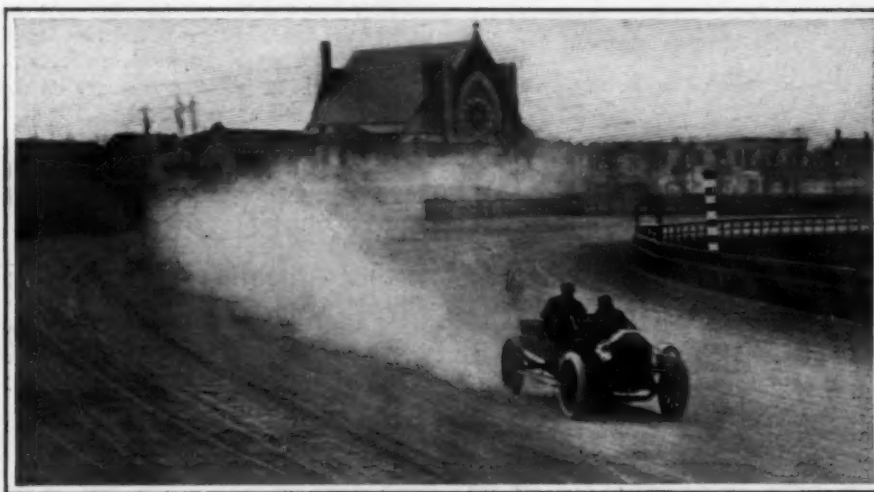
The large gasoline tank was placed between the seat and the tool-box, and was fitted with a large opening into which gasoline could be poured from a bucket, much time being saved in this way. Gasoline was strained and carefully protected so as to be ready to fill the tank without delay.

The men who acted as assistants were ready at each stop to dash water over the tires to cool them; to fill up with gasoline, water or lubricating oil; to change wheels or do whatever was required, Wridgway notifying them by preconceived horn signals what was wanted, or by dropping notes as he passed the tape.

A big score board, with numbers a foot high, was placed where the driver could see it each time he came round, and so kept posted as to his progress; and while running other information was given him by megaphone and by notes tied to a string and suspended from the end of a stick and dangled within reach of the mechanic as the car swept past. It was no easy matter to

catch these missives while running forty miles an hour; but it was neatly done by the men who rode with Wridgway. A stop was made every 100 miles for gasoline and water, and at the same time any necessary work was done, such as changing wheels.

Wridgway received the car fresh from the factory on the morning of Friday, May 5, the day of the trial, and all adjustments had to be made on the track, there being no time to try out the machine. A new carbureter was put on, delaying the start, which was scheduled for 8 o'clock. Owing to the newness of the engine the adjustment process was continued to some extent throughout the trial, the mechanics doing some very venturesome work on the engine



CHARLES G. WRIDGWAY MAKING 1,000-MILE RUN IN 24 H.P. PEERLESS ON BRIGHTON BEACH TRACK, MAY 5-6—TIME, 25 HOURS, 50 MIN., 1 SEC.

while the car was in motion, and getting sundry burns in consequence.

When Wridgway stopped at the end of 400 miles, shortly after 7 o'clock Friday evening, the acetylene searchlights on the car were lighted and red lanterns were hung around the inner rail to guide him. Two searchlights were focussed on the score-board, so that darkness would not interfere with keeping the driver informed as to the distance covered.

An ingenious wrinkle was adopted in connection with the gas lights on the car. A battery and spark coil were connected up and the terminals from the coil led to the gas burners, and so arranged that a spark could be produced at will at the burner. In this way the lamps could be lighted from the seat if blown or jarred out.

The pace was slackened somewhat during the dark hours, no chances of accident being taken; and a still further reduction was made necessary during the early morning by a very heavy mist which settled over

the track and made the red lights of very little use, besides soaking everything and causing a good deal of discomfort.

During the last hundred miles the exhaust pipe leading to the muffler jarred loose and the forward end of the pipe dropped away from the siamese pipe on the engine, and dragged on the ground. It was seen, however, before it had an opportunity to catch and do any damage, and was hastily wired in place, where it held until the conclusion of the trial. This was the only mishap that threatened trouble.

As Wridgway approached the tape on the last mile he was greeted by the honking of horns and the furious ringing of the big bell at the judges' stand; and as he crossed the line he was cheered by the spectators and officials. Another mile was covered before stopping, for "good measure," and the ignition was cut out as the car reached the tape on the thousand and first mile. Wridgway was looking anything but exhausted as he rose to his feet preparatory

to getting out; but he was forced to sit down again for the benefit of the ubiquitous photographers, who lined up and "shot" him in a volley. Jumping out of the car, he again posed, and the ordeal over, walked around as if he liked the feeling of the ground under his feet. Apart from considerable inflammation of the eyes and a dirt-bespattered face Wridgway looked well; and later proved that appearances were not deceptive by driving a couple of fast miles with the same car during the race meet in the afternoon.

Wridgway's record not only replaces the best previous record for a non-stop track run, but was a novelty in that it was the first run of the kind, in America at any rate, in which the same man drove all the time. The 1,000 mile record made by a Packard car in Detroit last year was 29 hours 53 minutes 37 seconds, and the average rate of speed figured out 34 1-4 miles an hour. In that non-stop run the drivers were changed several times. Wridgway

covered the distance in 25 hours 50 minutes 1 second total time, or 4 hours 3 minutes 36 seconds less than the Detroit record, and remained at the wheel all the time.

After the run he said that he had not trained for it. While driving, however, he ate and drank with great moderation, believing that the energy required for the digestion of food diminished the powers of endurance necessary for such a long trial.

An interesting little ceremony occurred just before the start of the trial, which showed that there was very good feeling between the Packard representatives—holders of the existing record—who were present during the greater part of the run, and Wridgway, the New York representative of the Peerless Company. Messrs. Waldon and Hurlburt, of the Packard company, presented Wridgway with a rabbit's foot mounted in gold as a charm to ward off ill luck, and Wridgway carried it, and with it the good wishes of the givers, throughout his record-breaking trip.

The following gives the times for intervals of fifty miles:

MILES.	H. M. S.
50	1:04:04
100	2:09:44
150	3:24:49
200	4:43:04
250	5:58:36
300	7:04:40
350	8:14:59
400	9:25:19
450	10:59:56
500	12:20:34
550	13:53:03
600	15:17:15
650	16:50:07
700	18:09:59
750	19:43:55
800	20:55:36
850	22:21:56
900	23:28:36
950	24:36:28
1000	25:50:01

The State of Iowa has licensed 1,000 automobiles, and the majority of them are owned in small towns or by farmers.—Linden (Wis.) Wisconsin.



CHANGING A REAR WHEEL AND COOLING A TIRE ON WRIDGWAY'S CAR.

Racing Season Opens in New York.

THE first automobile race meet of the New York season was held at the Brighton Beach track on Saturday afternoon, May 6, and a number of races pulled off in a very unexciting manner. The big 90-horsepower Fiat, with Paul Sartori as driver, which was entered in the five-mile open and the Brighton Beach handicap, was put out of commission by an accident the day before the meet. During Wridgway's 1,000-mile run Sartori was busy making ad-

almost double; the front axle bent; frame badly twisted; radiator damaged; steering gear disabled; rear axle sprung, and apparently the three sound wheels thrown out of line. The damaged car was dragged off the track and stowed in a shed.

Much was expected of the steam freak that, under the pilotage of Ross, made such fast time in Florida; but when Joe Nelson essayed to drive the *Lightning Bug*, as it is now called, against time for one mile,



WRIDGWAY'S SUPPLY, TIRE AND CHECKING STATION AT BRIGHTON BEACH TRACK.

justments on his car and occasionally taking a spin around the track to test the engine. On one of these circuits he attained fairly high speed, and when making the turn into the home stretch a tire burst. Sartori was pumping oil at that instant, and the wheels gave a sudden swerve. In an instant the right front wheel doubled under, twisting the heavy steel knuckle, and the car turned sideways and rolled over twice, finally stopping right side up. Sartori crawled from under the machine, covered with dirt and slightly cut about the face, but free from serious injury; his escape was little short of miraculous, according to those who saw the mishap.

The car was left in bad condition; the right front wheel smashed and the knuckle bent

disaster overtook him at almost exactly the same place where Sartori came to grief. For some unknown reason the freak car made a dive through the inside fence, taking a post with each front wheel and the rails on its back. Nelson ducked his leather helmeted head and escaped by a hair's breadth, and the machine came to a stop in the soft ground fifty feet from the track. The *Bug* looked like a tin kettle that had been tied to a dog's tail; for its aluminum covering was badly dented. The front axle was bent by the fence posts, and the wheels were consequently thrown much out of line. Nelson was hustled into a car and driven up to the grand stand to show the spectators that he was safe and sound, and was cheered; but another slice was taken from the interest of the meet.

The first event was announced as a five-mile trial against time by a five-horsepower motorcycle. After a fast mile the motor began to miss explosions, and was withdrawn from the track before the completion of the third mile.

A gasoline stock car race was scheduled to be run in five one-mile heats and a five-mile final, the cars being grouped in the heats according to horsepower, and handicapped in the final, according to the times made in the heats. The final was won by L. A. Mitchell, driving a 12-horsepower Decauville, his time being 8m. 1 3-5s.

One of the most interesting races of the day was expected in the five-mile open, in which Sartori with the Fiat, Guy Vaughan with the 40-horsepower Decauville, W. F. Winchester with E. H. R. Green's new Franklin skeleton and Joseph Cook with a 40-horsepower Pipe were entered. Sartori's

car was out, however; the Franklin did not seem to be in racing trim, and proved somewhat disappointing; and the Pipe failed to come up to expectations. Vaughan's driving and the regular running of his car were the interesting features of the event, and Vaughan's easy win was popular.

Walter Christie was on hand with his 80-horsepower front drive car and started to drive ten miles against the amateur track records established last year by the late Frank Coker; but at the end of five miles was so far behind the mark that he retired, his best mile, the second, being made in 1m. 1 3-5s. and the five miles in 5m. 11 1-5s. Later Mr. Christie went for the mile mark, but could do no better than 1m. 2 2-5s.

Vaughan, with the Decauville, easily won the five-mile event for cars weighing under 1,432 pounds, his only opponent being Winchester in the little Franklin. The latter car showed the same lack of form as in the former event in which it participated, and was beaten without difficulty, trailing from the start.

A ripple of interest was created when it was announced that there would be a special match race between the 40-horsepower Thomas Flyer and the 38-horsepower Royal Tourist, there being considerable rivalry between these machines and both showing speed. At the start, however, the Thomas car broke one of its side chains, and the match was called off—another disappointment to the shivering spectators.

The Brighton Beach Handicap at five miles was won by the Royal Tourist, driven by Wm. McIlvoid. Vaughan and the Decauville were on scratch, but could not make up the big handicap of the slower cars.

Wridgway was cheered when he appeared on the track in the Peerless, with which he had recently completed the 1,000 miles non-stop run. He made two miles against time in 2m. 24 3-5s.



OLIVER E. BUSH AT WHEEL OF 30-40 H.P. COVENTRY DAIMLER AT BRIGHTON BEACH.
First Time a Car of This Build Was Seen on an American Track.

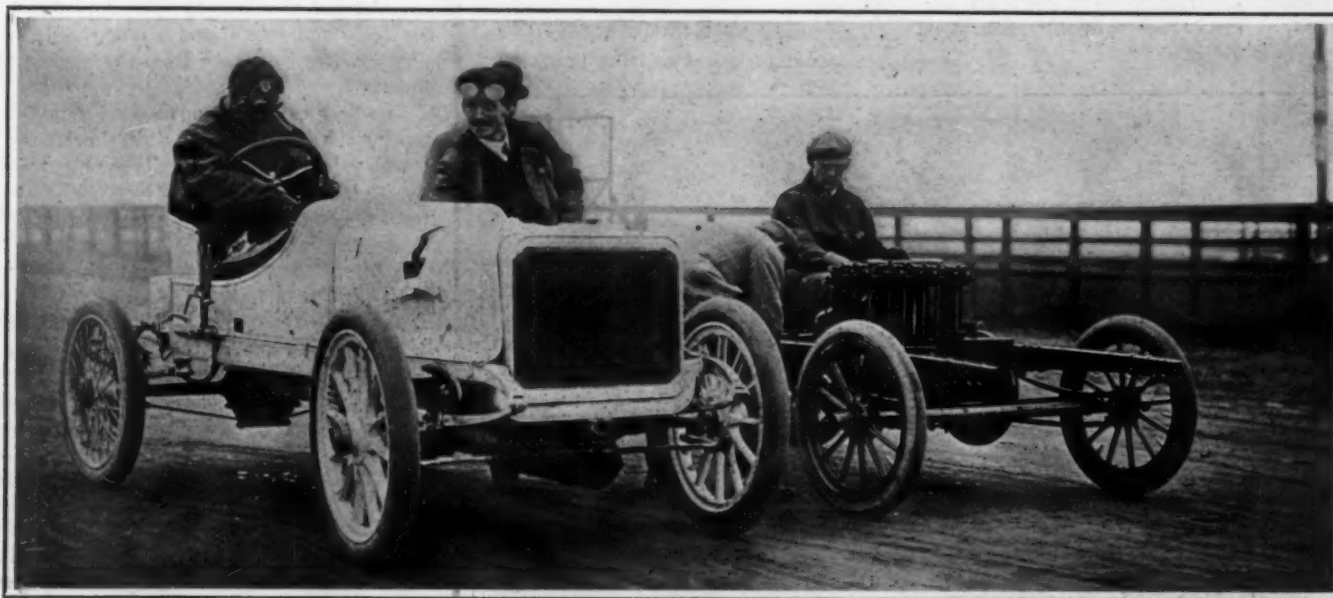
Shortly after the commencement of the racing a heavy fog blew over the track, at times hiding the back stretch from the view of the spectators in the grand stand. It also increased the chilliness of the spring air and added not a little to the feeling that the meet was ahead of its time. Spectators were few; a thousand would seem to be a large estimate of their number, and they were just sufficiently numerous to add to the desolate appearance of the huge grand stands. A large number lined up along the fence by the track, some sitting on the fence and others occasionally dropping their programs over and jumping into the track to recover them; and while there seemed to be police everywhere, the spectators also

went everywhere. The judges' stand was the only crowded spot in the grounds, except when the spectators jumped the fence and rushed up the track to see the *Lightning Bug* after the accident.

Following are the summaries:

Gasoline Stock Car Race.—Heats one mile; final five miles handicapped on times in heats—First heat, cars of 12 h.p. or less. Won by Alfred Comacho (Franklin); L. A. Mitchell (Decauville), second; W. W. Swan (Decauville), third. Time, 1m. 37 1-5s. Second heat, cars of 20 h.p. and less. A. S. Robinson (Queen), walk-over. Third heat, for cars of 40 h.p. and less. Won by Oliver E. Bush (Daimler); M. Roberts (Thomas), second; W. McIlvoid (Royal), third. Time, 1m. 24 2-5s.

Final Heat at Five Miles.—Won by L. A. Mitchell (Decauville), 2m. start; M. Rob-



GUY VAUGHAN, IN 40-H.P. DECAUVILLE, AND W. F. WINCHESTER, IN COL. E. H. R. GREEN'S 20-H.P. FRANKLIN, STARTING IN FIVE-MILE RACE.

erts (Thomas), second, 20s. start; O. E. Bush (Daimler), third, scratch. Time, 8m. 1 3-5s.

Five Mile Open.—Won by Guy Vaughan (Decauville); W. F. Winchester (Franklin), second; George Cook (Pipe), third. Times, 5m. 17 4-5s., 5m. 40 3-5s., 6m. 35 3-5s.

Five miles against time by Walter Christie 80 h.p. Christie. Times, one mile, 1m. 2s.; two miles, 2m. 3 3-5s.; three miles, 3m. 5s.; four miles, 4m. 8s.; five miles, 5m. 11 1-5s. Second trial at one mile. Time, 1m. 2 2-5s.

Five Mile Race.—For cars weighing under 1,432 pounds. Won by Guy Vaughan (Decauville); W. F. Winchester (Franklin), second. Times, 5m. 13 3-5s., 5m. 35s.

Five Miles (Brighton Beach Handicap).—For \$400 cup to be competed for at all Brighton Beach meets. Won by William McIlvoid (Royal Tourist), with 20m. 20s. start; O. E. Bush (Daimler), second, with 2m. start; A. S. Winslow (Cadillac), third, with 5m. start. Time, 9m. 3 1-5s.

Last year New York State raised \$1,100,000 for its main highways, and only 200 miles were built in favored counties and in short stretches, connecting no part of a county with another. Under the proposed bond issue the \$50,000,000 would make complete systems in all counties within a period

OUTING OF A.L.A.M. CONSTRUCTORS

(Continued from page 588.)

Co.; Leonard D. Fisk, guest, Hartford, Conn.; Charles T. Fletcher, mechanical engineer The Autocar Co.; Peter Fogarty, New York agent Northern Mfg. Co.

John H. Gerrie, guest, New York.

Rodney K. Haines, sales manager F. A. La Roche Co.; Francis E. Hamilton, guest, New York; Frederick J. Haynes, assistant engineer H. H. Franklin Mfg Co.; Elwood Haynes, president Haynes-Apperson Co.; Charles B. Hayward, guest, New York; S. D. Howe, designer, Worthington Automobile Co.; L. D. Hubble, designer, Pope Mfg. Co.; Russell E. Huff, engineer, Packard Motor Car Co.; W. H. H. Hutton, assistant superintendent Northern Mfg. Co.

R. B. Jackson, engineer Olds Motor Works; A. N. Jervis, guest, New York; James H. Jones, engineer Knox Automobile Co.; Henry B. Joy, general manager Packard Motor Car Co.

Charles B. King, engineer and superintendent Northern Mfg. Co.; H. J. Koehler,

Thomas H. Thomas, treasurer Locomobile Co. of America; H. C. Tillotson, general agent Kirk Mfg. Co.

H. Vanderbeek, engineer Studebaker Automobile Co.

C. A. Wardle, agency department A. L. A. M.; George Wesley, general superintendent Electric Vehicle Co.; John Wilkinson, engineer H. H. Franklin Mfg. Co.

Following are the names of the cars that were used on the run, preceded by their official designating numbers:

1, Elmore; 2, Autocar; 3, Buick; 4, Columbia; 5, Clement-Bayard; 6, Franklin; 7, Haynes; 8, Knox; 9, Locomobile; 10, Locomobile; 11, Northern; 12, Packard; 13, Pierce; 14, Pope-Toledo; 15, S. & M. Simplex; 16, Stearns; 17, Studebaker; 18, Thomas; 19, Renault; 20, Yale; 21, Olds; 22, Darracq; 23, Winton; 25, Columbia.

MEETING OF THE ENGINEERS.

Following Friday's automobile run of the engineers' of the Association of Licensed Automobile Manufacturers, a meeting of the engineers was held on Saturday



THE "LIGHTNING BUG," WITH JOE NELSON AT WHEEL, A MOMENT AFTER CRASHING THROUGH FENCE AT BRIGHTON BEACH. Note spread front wheels and fence post carried away by axle. This car was Louis Ross's "Teakettle" that made the mile record of 38 seconds in Florida last January.

of ten years, and the entire highway mileage of the State, both main and lateral, would be brought to a system of perfection, and that without increasing the burden of tax upon the cities or of the rural districts beyond what they are now paying for roads. The bond issue simply enables the State to take advantage of its credit and obtain roads in the lifetime of those now living, and to handle this great internal development just as a private corporation would do if it owned the State of New York and were laying out a system of railroads to bring its produce to the harbor of New York.

Vermont's registration law went into effect on May 1. Under it the cost of procuring permission to operate an automobile in that state totals \$4.18, made up as follows: Operator's license, \$2; registration fee, \$2; number sign for machine, 18 cents. To date 110 machines have been registered, and 120 operators' licenses issued.

Eastern sales manager Buick Motor Co.; M. C. Krarup, guest, New York.

N. Lazarnick, photographer, New York. C. R. Mabley, president Smith & Mabley, Inc.; J. S. Marvin, traffic manager A. L. A. M.; Hiram P. Maxim, chief engineer Electric Vehicle Co.; Richard W. Mead, guest, New York; Frank Nutt, assistant factory manager Haynes-Apperson Co.

Harold L. Pope, assistant manager Hagerstown factory Pope Mfg. Co.; Augustus Post, guest, New York.

A. E. Ranney (Pilot), New York agent Elmore Mfg. Co.

Frank A. Sanford, guest, New York; Charles Schmidt, mechanical superintendent Peerless Motor Car Co.; L. Sier, assistant sales manager, New York, for Studebaker Automobile Co.; Henry Souther, chemist, Locomobile Co. of America; George E. Sparks, Studebaker Automobile Co.; Frank B. Stearns, president F. B. Stearns Co.

forenoon at the Forty-second street headquarters of the association. The meeting was well attended. Papers on "Ignition" were read by Hiram Percy Maxim and John Wilkinson. The meeting was a closed session.

The next regular meeting of the engineers will be held June 2, when the subject of discussion will be "Carbureters and Carburation."

Running backward is not recommended as a particularly fascinating form of sport, but it is a very good thing to be able to steer a car rear end first in case it becomes necessary, through the disllement of the forward gears or other accidental damage, to resort to this method of getting home or to a repair shop. Occasionally something will go wrong on a hill, making a hurried backward descent necessary, or a hill will be so steep that it can be climbed only on the low reverse gear.

Start of Olds Transcontinental Race to Lewis and Clark Centennial Exposition.

THE first automobile run across the country from ocean to ocean having in it the interesting element of a speed contest began in New York on Monday, May 8, when two Oldsmobile runabouts just out of stock left the garage of the Harrolds Motor Car Company at Broadway and Fifty-ninth street, at 9.30 a. m. The destination of the two cars is the Lewis and Clark Centennial Exposition in Portland, Oregon, and the driver of the one that gets there first is to get a prize of \$1,000 from the Olds Motor Works; the other driver will be given the car he drives.

One of the machines has been given the sobriquet *Old Scout* and the other *Old Steady*—names, it will be noticed, the first four letters of which designate the make of the machines. The choice of drivers for this long and arduous contest fell upon Percy F. Megargel, of World's Fair *Pathfinder* fame, and Dwight B. Huss, who drove the gold medal Oldsmobile in the English Reliability Trials of 1903. Megargel, who is driving *Old Steady*, is accompanied by Barton Stanchfield, and Huss, in *Old Scout*, has Milford Wigle as his assistant and companion. Stanchfield and Wigle are respectively from the Lansing and Detroit factories of the Olds Motor Works, between which there is said to be the keenest rivalry, so that each party can be relied upon to do everything that is fair to finish the tour first, although lending whatever assistance it can to the other to assure that both shall get through.

The travelers started lightly equipped, carrying 200 pounds of luggage, tools and parts in a steamer trunk strapped at the back of the seat on each car. One spare tire is carried on each machine, and each is fitted with a swivel searchlight bracketed on the left side, as seen in the accompanying photograph taken at the start. These lights are so hung that they can be reversed and directed onto the engine in the rear of the body. Huss's car is fitted with Fisk tires similar to those that carried the Olds on its 6,000-mile tour of Europe last fall, while Megargel's machine is fitted with Diamond tires like those used by C. G. Wridgway in his 1,000-mile record trial on the Brighton Beach track last week.

A small group of tradesmen, newspaper men and photographers watched the start of the two cars from Columbus Circle, and a number of persons, in several other cars, accompanied the transcontinental tourists as far as Central Bridge, over the Harlem river, to see the trip well begun and wish the tourists a good journey and a successful culmination of it.

As the trip of approximately 3,500 miles is undertaken partly in the interest of the good roads movement, it is planned to reach Portland on or before the opening of the

convention of the National Good Roads Association on June 21, and James W. Abbott, special agent for the Rocky Mountain district for the office of Public Roads Inquiry of the Department of Agriculture, will precede the tourists by train, stopping at the main points at which they will touch to make arrangements for their care and to receive reports from them as to the condition of the roads over which they pass, as well as to give them information regarding the roads ahead.

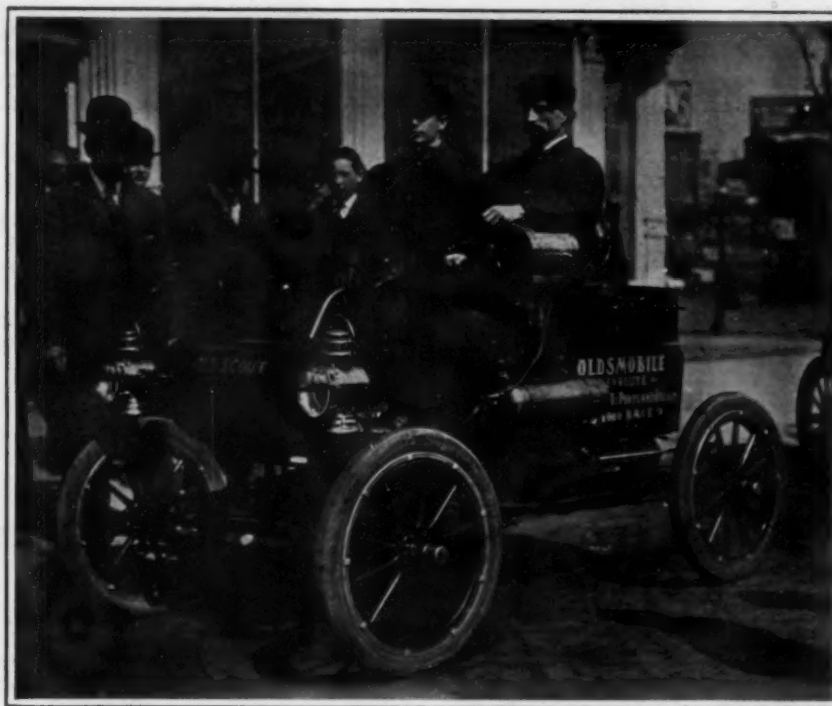
The route as laid out passes through Albany, Utica, Syracuse, Rochester, Buffalo, Erie, Cleveland, Toledo, Chicago, Davenport, Des Moines, Omaha, Cheyenne and Boise to Portland. Maps showing the route have been placed on exhibition at all of the Oldsmobile agencies throughout the country, and the tourists are to call at the agency in each of the cities through which they pass.

A feature in connection with the tour that will lend additional interest to it, especially among amateur and professional photographers, is the offer of the Olds Motor Works of \$150 in prizes for the best photographs of the two parties taken on the tour. The largest prize is one of \$25 for the best photograph of the transcontinentalists in their cars taken on the trip; the next is \$15 for the second best; the third \$10 for the third best; \$2 each for the next twenty-five, and \$1 each for the next fifty pictures. Prizes will be awarded upon merit, without regard to the time the views are received. In each case the competitor

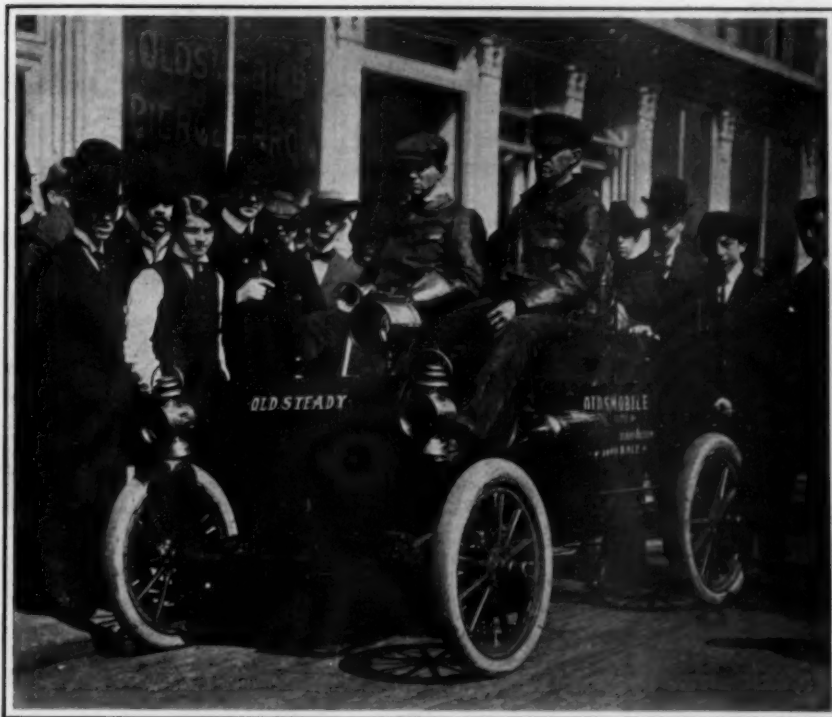
must send in one print mounted on cardboard or linen, and also the negative.

It is estimated that barring accidents and unexpected delays the run should require from thirty-five to forty-four days. The record for the transcontinental trip from San Francisco to New York, made by L. L. Whitman in a 10-horsepower Franklin, is thirty-three days, made last summer. Only three other attempts to cross the continent by automobile have been successful. The first was made by Dr. H. Nelson Jackson, of Burlington, Vt., who drove a Winton 20-horsepower car from San Francisco, following much the same route as is laid out for the present trip, the second by Tom Fetch in the 12-horsepower Packard, who took the southern route through Salt Lake City and Denver, and the third by L. L. Whitman, who drove an Oldsmobile runabout from 'Frisco over Fetch's trail. The present is therefore the second transcontinental trip with an Oldsmobile. Dr. Jackson's time for the run was sixty-four days; Fetch took sixty-one days, and Whitman seventy-three. Both these runs were made in the summer of 1903.

The drivers of *Old Scout* and *Old Steady* in the present interesting undertaking, were selected from several hundred applicants because of their unquestioned ability to carry through to successful conclusion such an arduous undertaking. Both were awarded first class certificates on the St. Louis run from New York last summer. Dwight Huss won a gold medal in the English Reliability Trials in 1903, driving a standard Olds runabout, and during the last two seasons drove the Oldsmobile racers with success on the track. He is a member of the American Automobile Association and the American Motor League and hails from Detroit.



DWIGHT B. HUSS AND MILFORD WIGLE LEAVING NEW YORK IN "OLD SCOUT."



PERCY F. MEGARGEL AND BARTON STANCHFIELD BEGINNING 3,500-MILE RUN.

Percy Megargel is well known to readers of *THE AUTOMOBILE* as the author of the interesting narrative of the Elmore *Pathfinder* trip from New York to St. Louis and back before the World's Fair tour last year. It will be remembered that he finished the first trip, returning by way of the southern route over the National Turnpike, just in time to start again on the tour to the Fair with the New York contingent. He has long been identified with newspaper work in Rochester; promoted and managed the automobile show in Rochester in 1904, and is also a member of the A.A.A. and the A. M.L. For the last six months he has been advertising manager of the E. R. Thomas Motor Company.

Readers of *THE AUTOMOBILE* will no doubt be pleased to learn that arrangements have been made with Mr. Percy F. Megargel, the driver of *Old Steady*, to write exclusively for this journal the narrative of the trip from ocean to ocean. Those who read Mr. Megargel's accounts of the trips of the *Pathfinder* to St. Louis will remember his lively style and keen observations along the way, and will look forward with interest to the weekly account of the progress of *Old Steady* and *Old Scout* toward Puget Sound.—EDITOR'S NOTE.

FAST RUN TO ALBANY.

Cross-Country Racers Cover 150 Miles Easily First Day Out.

Special Correspondence.

ALBANY, May 9.—The first stage of the Oldsmobile transcontinental race from New York to Portland, Oregon, was completed by the two contestants when they ran into

the garage at 99 Central avenue last evening.

The two little 7-horsepower runabouts, fresh from the stock room and as alike as two peas, behaved handsomely on the trip yesterday. It was a "try out" rather than a race, as the drivers arranged to spend the night at Albany and start even at 5 A.M. to-day for their journey westward.

The two machines were started from Broadway and Fifty-eighth street, New York, at 9:30 A.M. yesterday morning and reached Poughkeepsie at 2.55 P.M. At 4.15 o'clock they were on the road again, and met with fair to good roads along the route. First to arrive at the Albany garage was *Old Scout*, at 7.45 P.M., and forty-five minutes later *Old Steady* rolled in. Dwight Huss made the fastest run north of Poughkeepsie. Below Poughkeepsie Percy Megargel punctured a tire, but repaired it in fifteen minutes. At Shodack Centre F. K. Robinson and others of the Albany Automobile Club met the first of the tourists and escorted them in, leaving a guide for the others. There was no accident nor any unintentional delays; the two drivers were not racing, but busied themselves studying the workings of their machines and limbering them up preparatory for the long run and the finish on the Pacific Slope.

From Albany the transcontinental racers will take the northern route through New York State, touching at Utica, Syracuse (where they expect to spend tonight), Rochester and Buffalo. Wednesday night they expect to sleep in Buffalo.

James W. Abbott, the special agent for the Rocky Mountain District for the Office of Public Road Inquiry, met the travelers at the Ten Eyck when they arrived. He

is to follow along by train, keeping in touch with the tourists and studying the roads.

While an average daily run of eighty miles has been figured on to bring the transcontinentalists into Portland by the time set, this distance was exceeded by seventy miles yesterday, as they were favored by exceptionally fine weather and good roads.

FIRST DAY'S RUN.

Driver of "Old Steady" Writes of Fast Trip Despite Mishaps.

BY PERCY F. MEGARGEL.

ALBANY, May 8.—Leaving New York, escorted by a squadron of Oldsmobile touring cars and runabouts, at 9.30 o'clock this morning, the great \$1,000 race was on. Before our departure Dwight Huss, who drove *Old Scout*, and the writer agreed that we would not race in earnest to-day, but would both make Albany for the night, where we would stop at the Ten Eyck and compare notes. Of course, this took a load off my mind and Stanchfield's, and we were content to let *Old Steady* run in second place all day, taking care, however, to keep *Old Scout* in sight most of the time in order to gauge as nearly as possible the comparative speeds of the two cars.

Our first mishap occurred just outside of Peekskill, when we noted a flat rear tire on our car. Investigation showed that a large nail had gone completely through the casing, and the car having been run with the tire flat the inner tube punctured in no less than a dozen places. In fifteen minutes the tire had been removed, another tube inserted and the tire replaced and pumped up. The next mishap was the breaking of our searchlight bracket through the heavy vibration due to rough roads. But repairs have been arranged for, and the lamp will be ready for use again to-morrow.

The roads, with the exception of several short stretches, were in excellent condition, and the two little runabouts, although only possessing 7 horse power, fairly flew along, easily making in one day the distance it took the large cars on last summer's St. Louis tour two days to accomplish.

Of interest to draftsmen and designers of machinery are the pamphlets issued from time to time by *The Draftsman*, published in Cleveland, O. One of these, recently issued, is entitled "A Chapter on Lettering" and another "A Chapter on Pulleys." The first deals with plain and fancy lettering, borders and the like which are required in the every-day work of the draftsman and designer. A variety of sample alphabets are illustrated, full size, and many valuable suggestions and instructions are given. The pamphlet dealing with the subject of pulleys is equally practical, taking up the matter of pulley design from the view-point of the practical manufacturer. Instructions are given for designing pulleys throughout, and some sound advice is given on the matter of keys and key ways.

AUVERGNE CIRCUIT CONSIDERED DIFFICULT.

French Chauffeurs Tell of Sharp Turns and Varying Grades on Gordon Bennett Course—Say Winner Will Average Less than Fifty Miles an Hour.

Special Correspondence.

PARIS, April 29.—French chauffeurs do not judge lightly the difficulties of the mountainous circuit in Auvergne, as is shown by the systematic way in which drivers entered for the eliminating events are studying every inch of the road. So difficult is the hilly, winding course, that without daily practice for some time beforehand no driver can hope to maintain a good position in the race. Several of the future competitors have already tested the circuit at high speeds, notwithstanding the bad

minutes, thus attaining an average speed of slightly more than 50 miles an hour.

M. Girardot, the driver of the only C. G. V. car entered for the elimination races, is heartily in favor of the circuit, notwithstanding its difficulties and fatiguing nature, for on such a road none but the very best cars will have any chance of winning. So great is the physical fatigue that after one or two rounds at high speed Girardot says he is almost exhausted. Although a man of athletic proportions, he will take boxing and other exercise daily until the date of the trials in order to keep himself in form. Girardot is of the opinion that the car making an average speed of fifty miles an hour throughout the race will have a good chance of winning.

Duray, the De Dietrich chauffeur, corroborates the opinion of Girardot as to the fatiguing nature of the circuit. In his opin-

show many changes from last year's model. The hood has been extended rearward over the dash, and so shaped as to diminish the air resistance. The position of the gasoline tank has been changed, it being now placed behind the driver's and mechanic's seats, instead of under the rear of the chassis as formerly. Except that it is more powerful, developing 123 horse power, and has a slightly increased bore, the motor is similar to that of last year. The pump and magnet are fixed on the same shaft, and, consequently turn at the same speed. The lubricator has been modified, and the water tank for cooling brakes is abolished. The radiator is of honeycomb type, with fan in the flywheel. The clutch is of the usual Mercedes type, and the change-speed gear gives four speeds ahead and one reverse, the high-speed gear being in direct engagement. With the second speed gear a speed



THEY AT THE WHEEL OF THE 1905 GORDON BENNETT RICHARD BRASIER 90-HORSEPOWER RACING CAR.

weather in this southern, but cold, region, and have made known their impressions. Albert Clement, the young leader of the Clement team, is of the opinion that the circuit is exceedingly difficult, even dangerous. With its sharp turns and ever-varying grades, necessitating the constant use of change-speed gear, brakes and clutch, it appeals to him as a difficult and fatiguing "cake walk." Out of the eighty-five miles which constitute the circuit there are only three straight lengths, the longest of which is but 1,500 meters (less than one mile), and on such a route he is of opinion that the winner of the cup will not exceed an average speed of forty-six miles an hour. Notwithstanding its "beastly difficult nature," as the young French driver forcibly expresses it, the circuit pleases him, and he would not have it otherwise.

Last week Clement went around the circuit on his racing machine in 1 hour 43

minutes, which is shared by many who have studied the circuit closely, its danger will form its safety, for all the bends will have to be taken with great caution, and at a correct angle, and no driver will dare to start in the race without having first tested every difficult part of the road. The descent to Clermont, near the end of the circuit, is described by Duray as "terrible." At each of the sharp bends in the road his mechanic had to hold on to his seat with all his force in order to prevent being thrown out of the car. The De Dietrich chauffeur estimates the average speed of the winner at not more than forty-seven miles an hour.

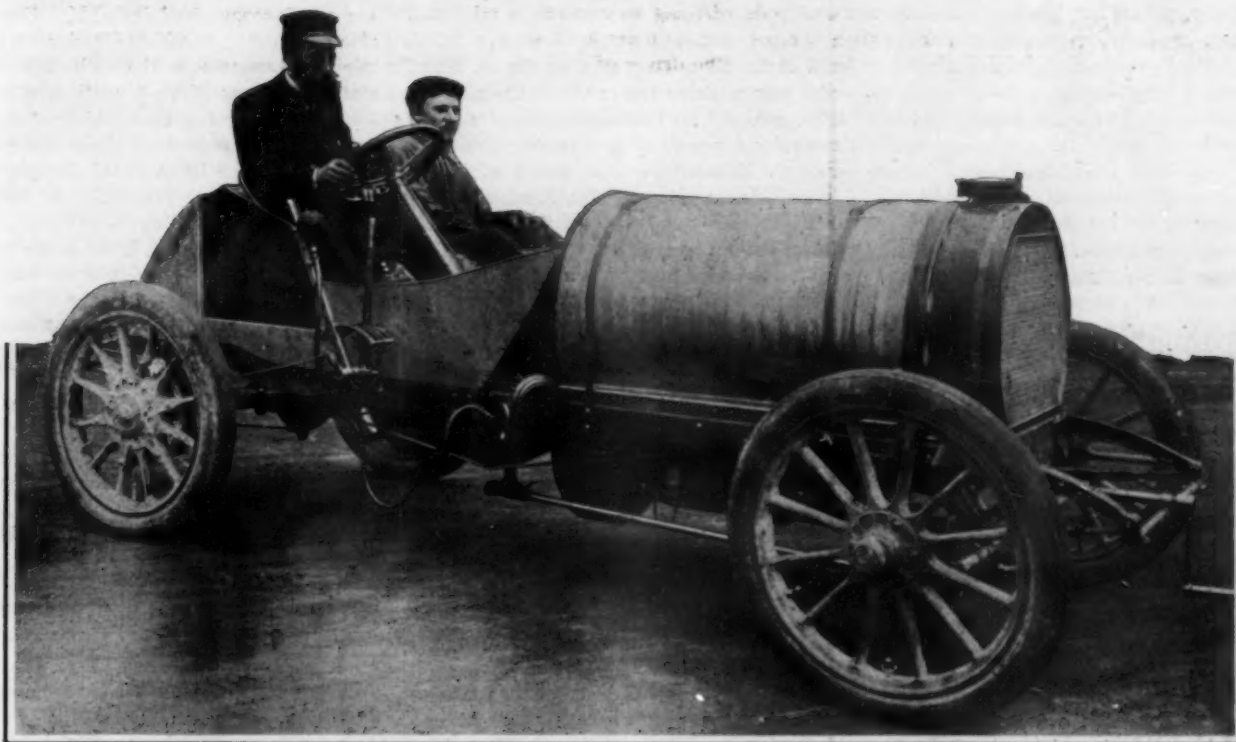
PARTICULARS OF MERCEDES CARS.

Two of the Gordon Bennett Mercedes cars, those of Baron de Caters and Jenatzy, are now finished, and it is expected that the third will be ready in about a fortnight. In general appearance the 1905 car does not

of from 47 to 49 miles an hour will be attained; on third gear, 80 to 84 miles an hour will be reached; and on the top speed, 112 miles an hour is possible. Chain drive is adopted, the number of teeth being 34 on each sprocket. The wheel base is 2m. 92cm., and the track 1m. 36cm.

ORDER OF START.

Following is the order in which the starts will be made in the Gordon Bennett race: 1, France; 2, England; 3, Germany; 4, Italy; 5, Austria; 6, America; 7, Switzerland; 8, France; 9, England; 10, Germany; 11, Italy; 12, Austria; 13, America; 14, Switzerland; 15, France; 16, England; 17, Germany; 18, Italy; 19, Austria; 20, America; 21, Switzerland. The intervals between starts will be three minutes. The national colors of the cars will be: France, blue; England, green; Germany, white; Italy, black; Austria, black and yellow; America, red; Switzerland, red and yellow.



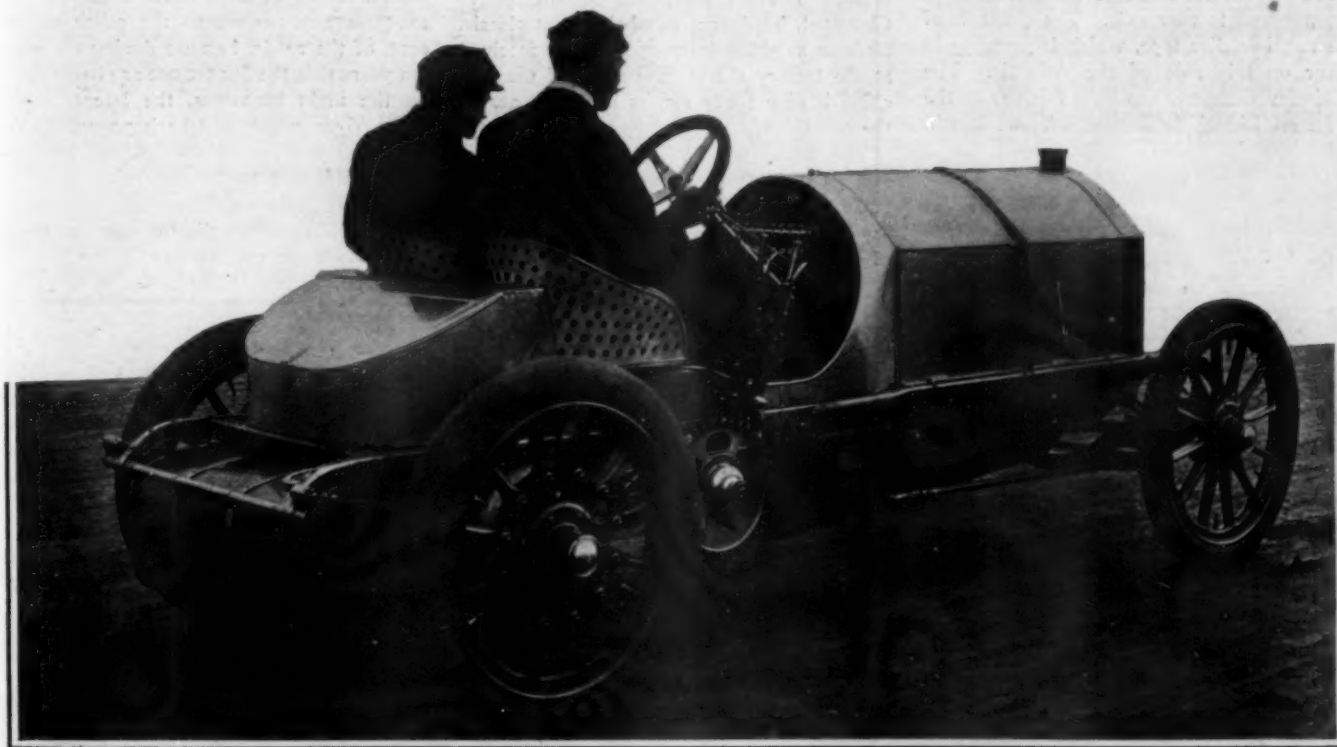
LE BLON AT THE WHEEL OF THE FOUR CYLINDER 120-HORSEPOWER HOTCHKISS GORDON BENNETT RACER.

The Cup Defender.

The car that won the Gordon Bennett race in 1904, the Richard Brasier, will be represented in the 1905 French elimination trials by three machines, all being alike and of 90 horsepower. One of these cars is shown in the engraving on page 596.

The pressed steel frames are of the accepted form, and Truffault suspension is fitted. The motor has its cylinders cast in pairs, each cylinder having a bore of 160 mm. and a stroke of 140 mm., or about 6.5-16 by 5.1-2 inches. The practice of making the bore greater than the stroke, or at least making the two measurements

equal, is followed by most of the French competitors in the elimination trials. The motor develops its rated power at 1,200 revolutions a minute. Valves are mechanically operated; ignition current is furnished by a magnet. The sliding gear transmission gives three forward speeds and reverse, and the drive is by side chains to the



JOSEPH TRACY AND AL POOLE HIS MECHANICIAN IN DR. THOMAS'S 140-H. P. LOCOMOBILE GORDON BENNETT RACING CAR.

rear wheels, which are 880 mm., or about 34 inches, in diameter, with 120 mm., or about 4 1-2 inch, tires. The front wheels are 875 mm. in diameter, a fraction of an inch smaller than the front wheels, and are fitted with 105 mm., or, approximately, 4 inch, tires. The wheelbase is 104 inches and the tread rather narrow, 49 inches. The weight of the car is 975 kilos, or about 2,150 pounds, only about 54 pounds under the weight limit of 2,204 pounds.

Preparing for British Trials.

Special Correspondence.

LIVERPOOL, May 2.—Preparations for the British eliminating trials for the Gordon Bennett race are proceeding apace, and an exciting contest will be witnessed in the Isle of Man on May 30. The Isle of Man is a "home ruler," and its House of Keys passed a bill some time back authorizing the closing of main roads to ordinary traffic during automobile races. The course to be used is the same as in last year's trials; starting from Douglas the road leads to the southern extremity of the island, proceeding up by the west coast to Ramsey, thence south back to Douglas. The circuit covers about forty miles of fairly good road, the only drawback being several rather dangerous corners, which will probably be put into "controls."

The Napier, Wolseley and Siddeley cars are now all on the road getting tuned up, and a fine contest is anticipated, in view of last year's struggle between the two first mentioned makes. The Siddeley racer is reputed to be of 110-horsepower, four cylinders, built on standard lines with three speed and reverse and side chain drive from countershaft to rear axle. The clutch is of the multiple disc type, which is growing in favor on this side of the Atlantic. The Wolseley Company has built this car to the order of Lionel de Rothschild, and it will be driven by Sidney Girling, who ran a Wolseley in last year's Gordon Bennett.

The Star Motor Company has built two 100-horsepower, four-cylinder, chain-driven cars, but unfortunately, some time back,

while one of them was out on a trial run, a serious collision occurred with a horse and cart. In consequence of this J. Lisle, who was to drive the car in the trials, was fined £50, and his license to drive was taken away for a period of two years. Curiously enough, English law does not hold in the Isle of Man, and so, legally, Mr. Lisle could drive in the Island, though debarred from doing so in England.

The date for the eliminating trial has been definitely fixed for Tuesday, May 30, the cars being weighed in on Monday, the 29th.

Unlike last year's trials, there is to be no hill-climb or special speed trial in the Island, the three places in the Gordon Bennett race being awarded in all probability to the first three finishing in the trials.

Another competition, to be held on the day after the eliminating trials, is attracting a deal of interest. It is the selection trials for the International Motorcycle Race. Fourteen motor bicycles are entered, some by the makers and some by private riders. The majority of the machines are fitted with two-cylinder V-shaped engines of 8-10 horsepower, with, of course, direct drive to back wheel by belt or chain. A determined effort is to be made by British motorcyclists to win the cup from France.

POPE RACER TESTED.

Colonel Pope's Gordon Bennett Car Tried Out Before A.C.A. Committee.

Special Correspondence.

TOLEDO, May 6.—In a few days the Pope-Toledo racer which is to compete in the Gordon Bennett race, will be shipped to Clermont, headquarters of the great classic. Definite shipping instructions were received at the factory a few days ago and the machine is now ready for its long ride across the ocean.

The final test of the automobile on this side of the water was given last Saturday, when S. B. Stevens, of Rome, representing the committee of the Automobile Club of America, came to Toledo to inspect it.

He was accompanied by a Mr. Campbell, also of Rome, N. Y. In order that they might be witness to the reliability of the machine, it was given a continuous run of 150 miles. At the close, Messrs. Stevens and Campbell expressed their entire satisfaction with the behavior of the car.

In the construction of this car the Pope Motor Car Company has spared neither time nor expense in making it as nearly perfect as possible. An aluminum hood hides the engine from the eyes of the curious. Aluminum also enters into the construction of the body. The machine complete weighs exactly 2,150 pounds.

The engine is of the four-cylinder type, and is said to develop 50 horsepower. The size of the cylinders is a factory secret, and will not be made public for the present. Other details of its construction will not be discussed outside the factory until after the race, and probably not then.

The wheelbase is 102 inches, and the tread 54 inches. The wheels are 34 by 4 inches. Nickel steel is largely used in the construction, the crankshaft being of this material one and three-quarter inches in diameter, and hollow. The change speed is of sliding gear type, and the drive by side chains. The gasoline tank has a capacity for 200 miles.

This car will be driven by Herbert H. Lytle, who has given it all possible tests in and about Toledo. He will be assisted by William Knipper, mechanic. Both of these gentlemen will leave for Europe shortly, so as to reach Clermont at the same time as the car.

The New York State \$50,000,000 bond issue plan to raise money for the immediate building of hard roads does not contemplate any neglect to the other 90 per cent. of the roads, because during the same ten years that the \$50,000,000 are being spent on the main highways, the lateral roads, some 66,000 miles, will be improved by receiving, under the present statute, 50 cents for each dollar the towns raise, and this sum from State and town will amount to upwards of \$40,000,000 in ten years, or about \$600 a mile on the average.



BANKING AND ROLLING A TURN ON MORRIS PARK TRACK, NEW YORK CITY, WHERE AUTO RACES WILL BE HELD MAY 20 FOR FIRST TIME.

Entries for Vanderbilt Race Close May 15.

NINETEEN entries, home and foreign, have been received for the Vanderbilt Cup race, and the entry lists close on Monday, May 15. The five cars permitted by the rules in each team have been entered for France, Germany and Italy; but one entry is required to fill the American team, and it is expected that this will be forthcoming before this reaches the reader's eye. The Racing Board of the American Automobile Association, which has charge of the arrangements for the race, has commenced active work and, with the experience gained last year, will be in a position to handle the big event efficiently and satisfactorily. W. K. Vanderbilt, Jr., the originator of the race and the donor of the big silver trophy which bears his name, is taking an active part in the work of the board.

FOUR AMERICAN ENTRIES.

The American entries, though only four in number, give promise of making a tremendous struggle for the retention of the cup. All are new machines of high power, and into them the builders have put the best materials and workmanship that brains could suggest or money buy, bringing to bear all the experience gained in the first Vanderbilt Cup race and making free use of the suggestions of those who took active part in it. Two Pope-Toledo cars have been nominated; one will be driven by Herbert Lytle, whose splendid work with the little 24-horsepower Pope-Toledo in the first Vanderbilt Cup race was a feature of the event. George Soules is considered as the most likely man for the other Pope car. The Locomobile car recently finished at the Bridgeport shops of the Locomobile Company of America, and described in *THE AUTOMOBILE* of April 22, has been entered by its owner, Dr. Harold E. Thomas, of Chicago, and will be driven by Joseph Tracy, whose fight against adverse circumstances while driving a stripped Royal Touring car in last year's race will not soon be forgotten by automobilists. The Locomobile car, which has been built for the Gordon Bennett race, is illustrated elsewhere in this issue.

AN AIR-COOLER ENTRY.

One of the most interesting entries is the 60-horsepower Franklin car nominated by E. H. R. Green. It has an air-cooled motor, and a great deal of interest is taken by automobilists in the machine, the first in which a motor of such high power has been air cooled. If the cooling system proves to be effective the car will certainly have the great advantage of not having radiator or water circulation system troubles. The fifth entry required to fill the American team has not been made, but positive assurance has been given to the A. A. A. officials that another car will be entered before the closing date, though the particulars have not been made public.

Every one officially interested in the Vanderbilt Cup race, including the donor of the cup, is in favor of a course without controls, and efforts are being made to select a course with this end in view. It now seems likely that while parts of the old circuit will be used, the whole route will be shifted bodily to the north and laid out so as to cut out Hempstead and Hicksville. W. K. Vanderbilt, Jr., and George Isham Scott, both members of the Cup Commission for 1905, have been examining the ground in search of the best possible roads for the next race, and it is expected that their work in this direction will be ended this week. The controls in last year's race caused friction, as it seemed difficult to make the contestants, especially those not familiar with the English language, comprehend just what they were expected to do and to refrain from doing when in control territory. If a suitable course can be selected in which there are no villages or other places where slowdowns are necessary, the race will be an uninterrupted run for the entire distance. This plan has been successfully operated on the French Ardennes circuit races.

RACE OF FIRST IMPORTANCE.

Not alone American automobilists, but automobilists abroad, are awakening to the fact that the race, though a recently instituted event, is already established in a position second only to that of the Gordon Bennett race; and there are some automobilists in France who believe that there is nothing to choose between the two. None but the best cars that can be produced are considered worthy of places on the team of five cars which will represent each country. The French automobile club is making sure of sending its best cars by stipulating that of the ten entries the five cars that make the best showing in the Gordon Bennett eliminations shall run in the American race. Among the entrants for the G. B. elimination trials are Heath and Teste (Panhard) and Gabriel (De Dietrich); all three were competitors in the Vanderbilt cup race last year, Heath winning the cup by a narrow margin from young Albert Clement. Their presence in the coming Vanderbilt Cup Race would add to the interest, as there is a strong racing rivalry between these great drivers.

Other cars entered in the French trials as competitors for places on the Vanderbilt Cup team are a Panhard, driven by Farman; a C. V. G., driven by Girardot; three Renaults, driven by Sis, Edmond and Berwin; and two De Dietrich cars, driven by Rougier and Duray. The trials in France take place on June 15.

FIVE CARS FOR GERMANY.

Germany will be represented by five Mercedes cars, one of which will be the 120-horsepower racing car recently purchased by Robert Graves, a member of the Automob-

bile Club of America, who has recently been elected a member of the German Automobile Club, thereby qualifying for the entry. The German club formally nominated Mr. Graves as one of its representatives on the team. Details about the power of the other cars and the drivers' names have not yet been made public. S. B. Stevens, of Boston, is said to be a possibility as a member of the Mercedes team.

Italy will have a formidable team of five Fiat cars. Hollander & Tangeman, the American representatives of the manufacturers of the Fiat cars, have been named as the American representatives of the Italian Automobile Club in selecting the Italian candidates for the Vanderbilt Cup; up to the date of writing no announcement of the selections, if any, had been made.

PREPARATIONS FOR THE RACE.

Little has been done as yet concerning the arrangement of details for the race. Already the question has arisen whether the roads included in the course shall be sprinkled with crude petroleum, as was done last year, or treated with Westrumite, which is described as an oily substance dissolved in water, the mixture being sprinkled on the roads. An inspection of the old cup course practically settled the question, however, for it was found that notwithstanding the lapse of seven months of all kinds of weather the oiled sections of road are in much better condition than those not so treated. The oiling was not done as well as it might have been; there was too much in some places and not enough in others; and on account of the lack of available time, the successive sprinklings were applied at shorter intervals than would produce the best results. It is probable that the 1905 Vanderbilt Cup course will be sprinkled with oil, and that the work will be commenced sooner than last year.

LOCAL FEELING TOWARD RACE.

With regard to the feeling of the residents in the vicinity of the proposed course toward the race promoters and automobilists generally, it is declared by the officials of the A. A. A. that there is a general desire to have the race held again in the same locality; nothing has been heard of any opposition, and nothing of the kind is anticipated. At the last race not only was a great deal of money left with the Long Islanders by the automobilists and their friends, but much attention was attracted to the country and valuable permanent road improvements made. On the other side of the book there was nothing but a few hours' interruption to traffic and a few fowls killed.

The open season for automobiles began in Evanston Sunday. Policemen Keefe, McEnery and Shaffer bagged 10 victims. While this is not the high score of the department, it is considered a remarkably good record for a day so early in the season, and gives promise of unusually good sport later on. The game brought in was of good quality and the fines were easily extracted.—Evanston (Ill.) Index.

Changes Made by New Massachusetts Law.

Special Correspondence.

BOSTON, May 8.—Governor Douglas has signed one of the automobile bills proposed by the Massachusetts Highway Commission, and it will go into effect on Saturday, May 20. This bill is an amendment to the law of 1903, and contains several important changes. Perhaps the most important change is in the clause which specifies the punishment for violation of the automobile law. Under the old law the maximum fines were \$25 for a first offence and \$50 for a second offence, and \$100 for operating without a license or certificate of registration. An effort was made to increase the maximum fine for a second offence to \$250, but this failed, and as the bill now reads the maximum fines are \$25, \$50 and \$100. The fine for operating without a license remains the same.

Though the increase in the fine for a third offence is against the automobilist, two points in this new clause are distinctly in their favor. One is that the series of fines applies only within the calendar year, and any fines imposed in a previous calendar year are not to be taken into account in a subsequent year in administering punishment.

The other point for the autoist, and an extremely important one, is the change in the direction of the courts. Under the old law the courts had no discretion if an automobilist was found guilty, but must impose a fine; under the new clause the "shall" is changed to "may," making the imposition of a fine optional with the courts.

Another important change in connection with the punishment clause is a direction to the courts of the Commonwealth to keep a record of all automobile cases brought before them and to report all cases to the Highway Commissioners, making special mention of flagrant violations of the law. Under the old system an automobilist might be fined several times in each county without being brought to the attention of the Highway Commissioners, except by the special effort of some prosecutor. Under the new law the commission will have at hand a complete record of all violators of the law, which will aid them materially in deciding upon the revocation or suspension of licenses.

An important amendment relates to machines not registered under the Massachusetts law. The Highway Commissioners, in their original draft, desired to compel all machines entering the state to carry Massachusetts numbers and no others. This provision, however, was strongly opposed by automobilists, hotel men, summer residents and others, and the bill as approved permits non-residents to operate their machines in the state for a period of fifteen days without a Massachusetts registration. Each must, however, carry the number and license issued by the state in which the

owner of the machine resides. No other number is permitted, and at the end of fifteen days a Massachusetts number must be substituted. Cars registered in Massachusetts are permitted to carry only the Massachusetts number.

Under the new law an unlicensed person may operate a machine provided he is accompanied by a licensed operator, who has upon his person his license. This is to permit novices to learn to drive, as under the old law a person could not learn without breaking the law. A concession to the professional operator is the reduction of the fee for the renewal of his license from \$2 to fifty cents.

The other changes are principally the perfection of clauses of the old law, such as a change of wording so that the Highway Commission can more easily "kill" a car and suspend or revoke the operator's license, the addition to the commission's power of the right to administer oaths to witnesses in hearings; more stringent requirements concerning the notification to be given the commission upon the transfer of ownership of a car, and a specific provision by which the commission may permit an owner to retain his original number when he changes his car.

The new law in full is as follows:

AN ACT RELATIVE TO THE REGISTRATION OF AUTOMOBILES AND MOTOR CYCLES AND TO THE LICENSING OF THE OPERATORS THEREOF.

Be it enacted, etc., as follows:

Section 1. In the administration of the law providing for registering automobiles and motor cycles and for licensing operators thereof, any member of the Massachusetts Highway Commission, or its secretary, may administer oaths and take testimony; and any person who wilfully swears or affirms falsely in regard to any matter or thing respecting which such oath or affirmation is required by said commission shall be deemed guilty of perjury.

Section 2. Section one of chapter four hundred and seventy-three of the Acts of the year nineteen hundred and three is hereby amended by striking out the last sentence thereof and inserting in place thereof the following:—Upon the transfer of ownership of any automobile or motor cycle, its registration shall expire, and the person in whose name such vehicle is registered shall immediately return the certificate of registration to the Massachusetts Highway Commission with a written notice containing the date of such transfer of ownership and the name, place of residence and address of the new owner. The Massachusetts Highway Commission, at its discretion, may assign to any person who so surrenders his registration certificate and who desires to register another automobile or motor cycle the distinguishing number or mark described in the surrendered certificate. No number or number plate other than those prescribed by the Massachusetts Highway Commission in its certificates of registration shall be displayed on any automobile or motor cycle operated in this Commonwealth; *provided, however, that any automobile or motor*

cycle owned by a non-resident of this State who has complied with the laws relative to motor vehicles and the operation thereof of the State in which he resides may be operated by such owner on the roads and highways of this State for a period not exceeding fifteen days without the license, certificate of registration and number plates furnished by the Massachusetts Highway Commission. Every such vehicle shall have displayed upon it the distinguishing number or mark of the State in which the owner thereof resides and none other until the vehicle is registered in accordance with the provisions of this section—so as to read as follows:—Section 1. All automobiles and motor cycles shall be registered by the owner or person in control thereof in accordance with the provisions of this act. Application for such registration may be made, by mail or otherwise, to the Massachusetts Highway Commission or any agent thereof designated for this purpose, upon blanks prepared under its authority. The application shall, in addition to such other particulars as may be required by said commission, contain a statement of the name, place of residence and address of the applicant, with a brief description of the automobile or motor cycle, including the name of the maker, the number, if any, affixed by the maker, the character of the motor power, and the amount of such motor power stated in figures of horse power; and with such application shall be deposited a registration fee of two dollars. The said commission or its duly authorized agent shall then register, in a book to be kept for the purpose, the automobile or motor cycle described in the application, giving to such automobile or motor cycle a distinguishing number or other mark, and shall thereupon issue to the applicant a certificate of registration. Said certificate shall contain the name, place of residence and address of the applicant and the registered number or mark, shall prescribe the manner in which said registered number or mark shall be inscribed or displayed upon the automobile or motor cycle, and shall be in such form and contain such further provisions as the commission may determine. A proper record of all applications and of all certificates issued shall be kept by the commission at its main office, and shall be open to the inspection of any person during reasonable business hours. The certificate of registration shall always be carried in some easily accessible place in the automobile or motor cycle described therein. Upon the transfer of ownership of any automobile or motor cycle, its registration shall expire and the person in whose name such vehicle is registered shall immediately return the certificate of registration to the Massachusetts Highway Commission with a written notice containing the date of such transfer of ownership and the name, place of residence and address of the new owner. The Massachusetts Highway Commission, at its discretion, may assign to any person who so surrenders his registration certificate and who desires to register another automobile or motor cycle the distinguishing number or mark described in the surrendered certificate. No number or number plate other than those prescribed by the Massachusetts Highway Commission in its certificates of registration shall be displayed on any automobile or motor cycle operated in this Commonwealth; *provided, however, that any automobile or motor cycle owned by a non-resident of this State who has complied with the laws relative to motor vehicles and the operation thereof of the State in which he resides may be operated by such owner on the roads and highways of this State for a period not exceeding fifteen days without the license, certificate of registration and number plates furnished*

by the Massachusetts Highway Commission. Every such vehicle shall have displayed upon it the distinguishing number or mark of the State in which the owner thereof resides and none other until the vehicle is registered in accordance with the provisions of this section.

Section 3. Section two of said chapter four hundred and seventy-three is hereby amended by striking out the word "license" in the last sentence thereof, and inserting in place thereof the words:—certificate of registration—so as to read as follows:—Section 2. Every manufacturer of or dealer in automobiles or motor cycles may, instead of registering each automobile or motor cycle owned or controlled by him, make application upon a blank provided by said commission for a general distinguishing number or mark, and said commission may, if satisfied of the facts stated in said application, grant said application, and issue to the applicant a certificate of registration containing the name, place of residence and address of the applicant, and the general distinguishing number or mark assigned to him, and made in such form and containing such further provisions as said commission may determine; and all automobiles and motor cycles owned or controlled by such manufacturer or dealer shall until sold or let for hire or loaned for a period of more than five successive days, be regarded as registered under such general distinguishing number or mark. The fee for every such certificate of registration shall be ten dollars.

Section 4. Section four of said chapter four hundred and seventy-three is hereby amended by inserting after the word "each," in the twenty-first line, the word:—original,—by inserting after the word "dollars," in the same line, the words:—and the fee for the renewal of each license to operate for hire shall be fifty cents,—and by adding at the end of said section the words:—The provisions of this section shall not prevent the operation of automobiles by unlicensed persons if riding with or accompanied by a licensed chauffeur or operator. The operator's license shall always be carried by the licensee when he is operating an automobile or motor cycle, so as to read as follows:—Section 4. Licenses for operating automobiles and motor cycles shall be issued by the Massachusetts Highway Commission or duly authorized agents thereof. Application shall be made upon blanks prepared by the Commission for this purpose, and the licenses issued shall be in such form and shall contain such provisions as said commission may determine. To each licensee shall be assigned some distinguishing number or mark, and a proper record of all applications for license and of all licenses issued shall be kept by the commission at its main office, and shall be open to the inspection of any person during reasonable business hours. Each license shall state the name, place of residence and address of the licensee and the distinguishing number or mark assigned to him. Special licenses for operating automobiles or motor cycles for hire shall be issued by the commission, but no such license shall be issued until the commission or its authorized agent shall have satisfied itself or himself that the applicant is a proper person to receive it. Such licenses shall be granted for one year only. The fee for each original license to operate shall be two dollars, and the fee for the renewal of each license to operate for hire shall be fifty cents. All fees shall be deposited at the time of making the application. The commission may at any time suspend or revoke any license for any misconduct of the licensee. Before a license to operate is granted, the applicant shall pass such examination as to his

qualifications as may be required by the State Highway Commission. The provisions of this section shall not prevent the operation of automobiles by unlicensed persons if riding with or accompanied by a licensed chauffeur or operator. The operator's license shall always be carried by the licensee when he is operating an automobile or motor cycle.

Section 5. Section nine of said chapter four hundred and seventy-three is hereby amended by inserting after the word "license," in the third line, the words:—or certificate,—by striking out the word "section," in the third and fourth lines, and inserting in place thereof the words:—section two and —by striking out the word "shall," in the sixth line, and inserting in place thereof the word:—may, and by striking out all after the word "for," in the eighth line, and inserting in place thereof the following:—a second offence and not exceeding one hundred dollars for subsequent offences committed during each calendar year; and the penalties imposed for violations of any provision of this act for any calendar year shall be imposed without regard to violations thereof committed in any previous calendar year. Any person convicted of operating an automobile or motor cycle in this Commonwealth after his license to operate has been suspended or revoked, or any person convicted of operating or causing or permitting any other person to operate an automobile or motor cycle after the certificate of registration for such vehicle has been suspended or revoked, shall be punished by a fine not exceeding one hundred dollars, or by imprisonment for a term of ten days, or by both such fine and imprisonment,—so as to read as follows:—Section 9. The commission may, after due hearing, suspend or revoke a certificate issued under section one of this act, or the license or certificate issued to any person under sections two and four of this act, for any cause which it may deem sufficient; and any person convicted of violating any provision of this act may be punished by a fine not exceeding twenty-five dollars for the first offence, and not exceeding fifty dollars for a second offence, and not exceeding one hundred dollars for subsequent offences committed during each calendar year; and the penalties imposed for violations of any provision of this act for any calendar year shall be imposed without regard to violations thereof committed in any previous calendar year. Any person convicted of operating an automobile or motor cycle in this Commonwealth after his license to operate has been suspended or revoked, and any person convicted of operating or causing or permitting any other person to operate an automobile or motor cycle after the certificate of registration for such vehicle has been suspended or revoked, shall be punished by a fine not exceeding one hundred dollars, or by imprisonment for a term of ten days, or by both such fine and imprisonment.

Section 6. A full record shall be kept by every court or trial justice in this Commonwealth of every case in which a person is convicted under the provisions of said chapter four hundred and seventy-three or of any other act relative to automobiles or motor cycles, and a certified copy of such record shall be sent forthwith by the court or trial justice to the Massachusetts Highway Commission. Said courts and trial justices shall furnish to the Massachusetts Highway Commission the details of any particularly flagrant cases which may be heard before them, and they may make such recommendations to said commission as to the suspension or revocation of the license or certificate of registration of the persons

defendant in such cases as they may deem necessary. Said commission shall keep such records in its main office, and they shall be open to the inspection of any person during reasonable business hours.

Section 7. Section six of chapter four hundred and seventy-three of the acts of the year nineteen hundred and three is hereby repealed.

MASSACHUSETTS SPEED LAW.

Local Authorities Given Right to Fix Limits on City and Town Roads.

Special Correspondence.

Boston, May 8.—Automobile legislation in Massachusetts for 1905 was completed last Thursday when Governor Douglas put his signature to the speed bill, the second of the measures proposed by the State Highway Commission.

The new law, which goes into effect thirty days hence, gives the power to the authorities of cities and towns to make special regulations for particular highways either in excess of or less than the speed limits prescribed by the general statute. In other words, the cities and towns are given power either to permit a road race or to exclude automobiles altogether from their highways.

This power is not given unrestrictedly, however, for if special regulations are made they must be published in a local paper, and then if fifty residents of Massachusetts, including ten taxpayers of the city or town, petition the Highway Commissioners, the special regulations are void until approved by the Commission. The Commission may be petitioned against either too high or too low regulations, so that protection is offered both for the citizens and for automobilists. In case special regulations are promulgated, they must be posted on sign boards along the roads affected, the cost of the sign boards to be borne by the State.

The complete bill as signed is as follows:

An Act Relative to the Speed at which Automobiles and Motor Cycles may be operated on Public Ways.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1. The city council of a city or the board of aldermen of a city having no common council, and the selectmen of a town may make special regulations as to the speed of automobiles and motor cycles and as to the use of such vehicles on particular roads or ways, including their complete exclusion therefrom. If they determine that on any particular way a speed greater than the speeds specified in section eight of chapter four hundred and seventy-three of the acts of nineteen hundred and three may be permitted with safety, they may make such special regulations as may appear to them to be necessary; provided, however, that no such special regulation increasing or lessening the speed at which automobiles and motor cycles may be run on the public highways, or excluding them therefrom, shall be effective unless such regulation shall have been published in one or more newspapers, if there be any, published in such city or town, otherwise in one or more newspapers published in the

county in which the city or town is situated. If, within fifteen days after the publication of such notice, not less than fifty residents of Massachusetts, at least ten of whom shall be taxpayers of the city or town, file a written protest with the Massachusetts highway commission, such special regulation shall not be valid until approved by said board after public notice and a hearing given by said board in the city or town. Such special regulations shall be posted conspicuously by or under the direction of the Massachusetts highway commission on sign boards at such points as the board may deem necessary. The cost of such sign boards and the expenses in connection with their erection and maintenance shall be paid out of the appropriation for expenses in connection with the registration of automobiles and motor cycles and the licensing of operators thereof. No ordinance, by-law or regulation now in force in any city or town which regulates the speed at which automobiles or motor cycles shall

Logan Touring Car.

The Logan car, built by the Logan Construction Co., of Chillicothe, Ohio, is an automobile in which the propulsive power is supplied by a type of gasoline motor which has been brought to its highest state of perfection in the United States—the double cylinder opposed motor—hung under the body, with cylinders fore and aft, driving through a chain to the live rear axle. A comfortable side-entrance body is fitted, the seats of which are so upholstered as to make them exceedingly comfortable. The car may be classed as a light touring car, weighing 1,600 pounds, with 20-horse power motor.

The frame is of angle steel 1-4 inch thick, 2 1-2 inches deep and 1 1-2 inches wide, well

case, is the flywheel, 22 inches in diameter and 110 pounds weight.

The cylinders of the motor are of 4 3-4 inch bore and 5-inch stroke, and have integral water jackets and valve chambers, but separate heads. The motor is rated at 20-horsepower at 1,220 revolutions a minute. The crank case is of aluminum, thick enough to be amply strong. Bronze bearings are fitted throughout the engine, those on the crank-shaft being "spotted" with babbitt—that is, circular patches of babbitt are inserted in the bronze bushing, so that the bearings combine the softness and wearing qualities of the babbitt with the hardness of the bronze. Main crank-shaft bearings are 1 5-8 inches in diameter and 3 1-2 inches long, and the crank-pin bearings of the same diameter and 2 1-2 inches long. All bearings except on the piston pins are adjustable for wear. Both crank-shaft and connecting rods are made from steel drop forgings.

Automatically operated inlet valves are used, with the usual form of exhaust valves; all are 1 3-4 inches in diameter and of heavy pattern to avoid breakage. Gas is supplied by a float feed carbureter. A combined tank and radiator and a gear pump driven from the cam-shaft constitute the circulating and cooling system. Ignition is by jump spark; a vibrator coil is mounted on the dash and current supplied by two sets of dry batteries. A distributor is mounted on the end of the cam-shaft just outside the crank case; its position, as well as the general arrangement of the motor, may be seen in the engraving of the motor alone on the opposite page.

A compact sliding gear transmission gives two forward speeds and reverse with a single controlling lever, the drive being direct on the high speed with no gears in mesh. All gears have 1-inch face and are of steel, hardened; the gear shafts run in bronze bearings. A contracting band clutch is fitted to engage with a 2-inch flange cast on the fly-wheel; the contracting band is of steel, lined with "Gandy" belting, and is provided with adjustment so that the wear of the lining may be taken up.

No gear shifting can be done while the clutch is engaged, and, on the other hand, the clutch cannot be engaged while the gear shifting lever is out of place—that is, it must be in one of the notches, and not between notches, to permit gears to be changed.

Full elliptic springs 36 inches long are used all round; and both front and rear axles are kept in line by radius rods, the rods for both axles being secured to brackets at the center of the frame. These rods are very noticeable, and with the longitudinal truss rods of the frame, give a distinctive appearance to the running gear. Turn-buckles on the truss rods for the rear axle provide the necessary means for making adjustments. The manufacturers state that the arrangement of the truss rods prevents much of the bouncing usually felt when a car is running over rough roads.



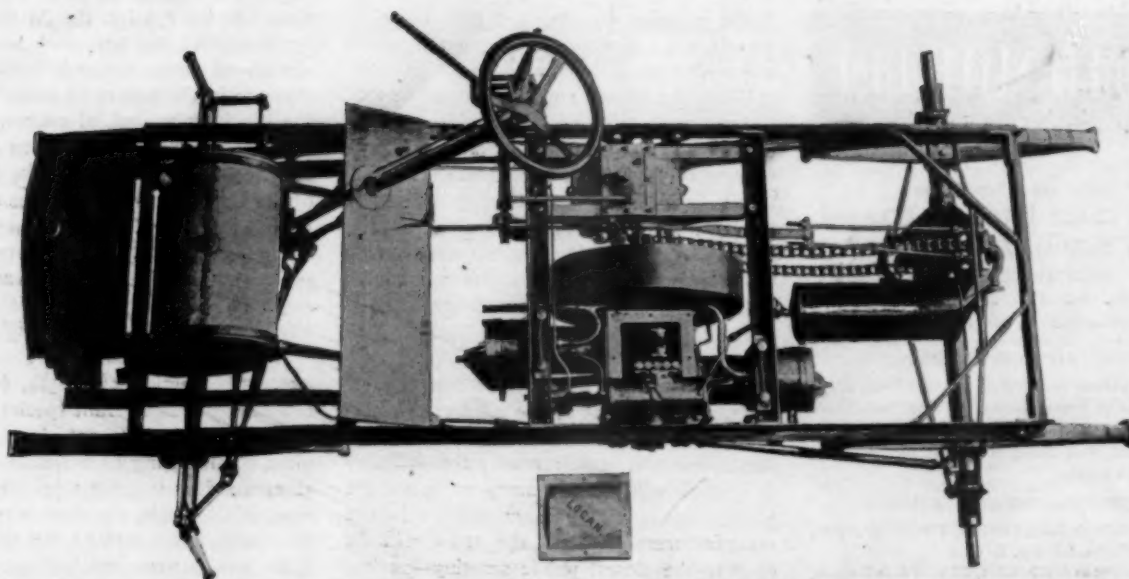
LOGAN TOURING CAR, WITH TOP, IN A PICTURESQUE SITUATION.

be run upon its public ways shall hereafter have any force or effect. Nothing herein contained shall be so construed as to affect the rights of boards of park commissioners, as authorized by law.

SECTION 2. Section fourteen of chapter four hundred and seventy-three of the acts of the year nineteen hundred and three is hereby repealed.

If the motor refuses to start on account of a bad mixture, and you are not sure whether it is too rich or too weak, it is much better to start with an extremely weak mixture and work up to the right one than to start with too much gasoline, which must be worked out by manual labor at the starting crank.

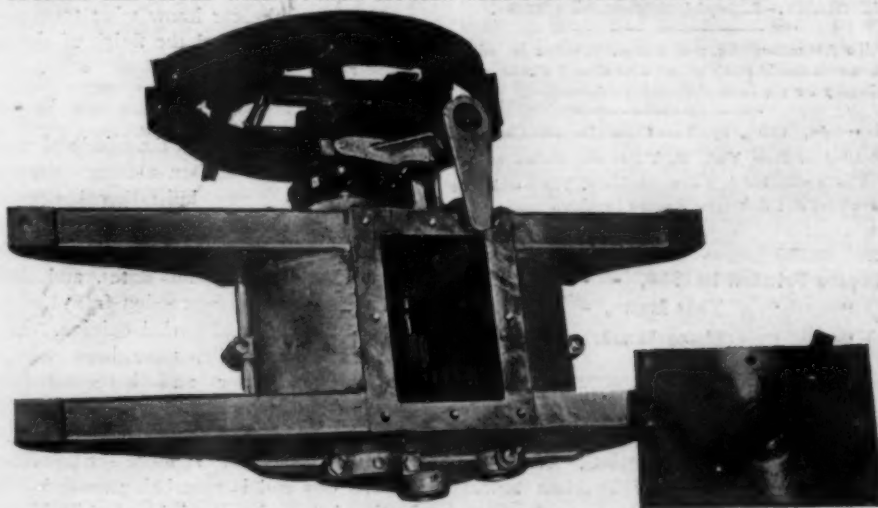
braced at the corners with steel plates and angle braces, and trussed by steel rods, 5-8 inch in diameter, running from end to end under the frame, the whole making a frame that is stiff and strong and at the same time of minimum weight for the work it has to do. The motor is hung from two cross-members of the same material as the main frames, a lug cast on each cylinder taking the studs used for this purpose. The motor is on the left-hand side and the shaft extends on the right to the transmission gear case, which occupies the opposite side of the frame and is supported by the same cross-pieces that carry the motor. In the center, between the motor and transmission



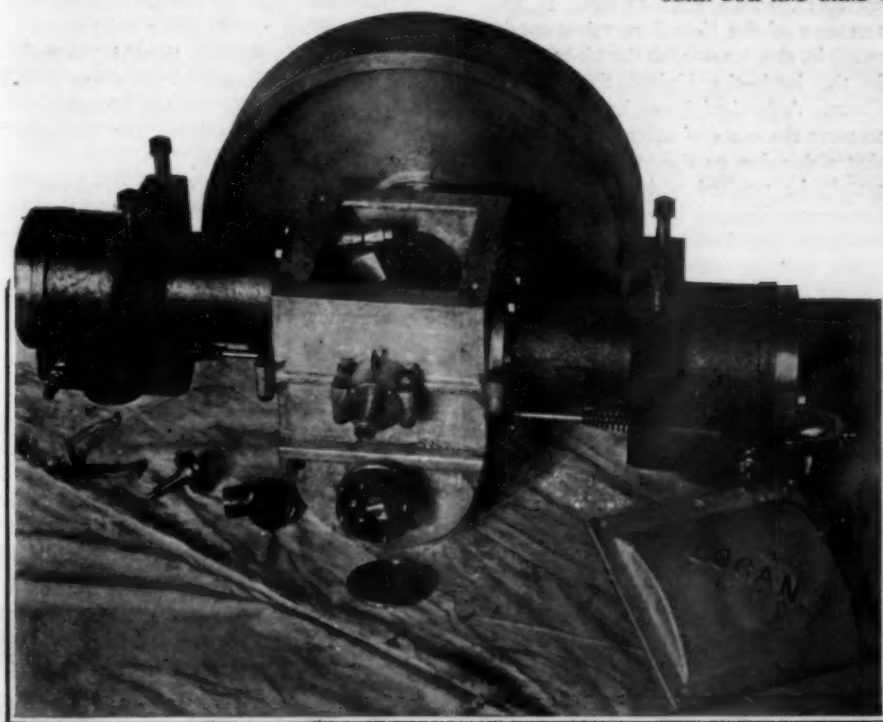
CHASSIS OF LOGAN 20-HORSEPOWER TOURING CAR FITTED WITH DOUBLE OPPOSED CYLINDER HORIZONTAL MOTOR.

Two band brakes are placed on the differential, and are operated together by a pedal. Throttling is governed by a foot button, and the time of ignition by a lever on the steering column, just under the wheel; a side lever operates the clutch, and a similar lever shifts the gears. Rack and pinion steering gear is fitted. The wood artillery wheels are 30 inches in diameter with 3 1-2-inch detachable pneumatic tires.

Under the round-topped, vertical-sided bonnet is the large cylindrical gasoline tank, the filling hole on top being reached through a door in the top of the bonnet. Any desired color can be had in the painting of the body; the makers state that particular attention is paid to the finishing, no less than eighteen coats being applied by the painters.



GEAR BOX AND BAND CLUTCH OF THE LOGAN CAR



CYLINDERS, CRANK CASE, AND FLYWHEEL OF LOGAN CAR.

In addition to light touring cars, the Logan Company builds runabouts and commercial cars. The same motor is used in all machines; but in the commercial cars the frame and other parts which have to bear the weight of the load are made heavier and stronger. In the case of the one-ton truck, the floor is level, all machinery being below the floor line and out of the way. Either pneumatic or solid tires are furnished with commercial cars, according to the desire of the customer; but solid tires are recommended as being more suitable for heavy work.

While the ordinary method of washing the paintwork on an automobile—using a sponge and a stream of water from a hose—is the quickest way to remove the dirt, the very best results, with the least possible injury to the surface, may be obtained by discarding the sponge and allowing the mud and dirt to be softened and carried off by the flow of water alone, after which the paint may be dried and polished with cham-
ois. This, of course, is a rather slow process, but experienced carriage painters state that it is much easier on the varnish than the sponging method.



VOL. XII.

No. 19

Published every Saturday by
THE CLASS JOURNAL CO.,
 Flatiron Building, Madison Square,
 NEW YORK CITY.

Cable Address - - - Autoland, New York
 Long Distance Telephone - 300 Gramercy, New York

SUBSCRIPTION RATES:

United States, Canada and Mexico, - One Year, \$2.00
 Other Countries in Postal Union, - One Year, \$3.00

To Subscribers—Do not send money by ordinary mail.
 Remit by Draft, Post-Office or Express Money Order,
 or Register your letter.

FOREIGN SUBSCRIPTION AGENTS:

ENGLAND:—Hilffe & Sons, Limited, 3 St. Bride Street,
 Ludgate Circus, London, E. C.

FRANCE:—Boyveau & Chevillet, 22 Rue de la Banque,
 Paris.

GERMANY:—A. Seydel, Mohrenstrasse 9, Berlin.

To Advertisers—Copy or changes in orders for advertisements should reach us not later than 5 o'clock p. m. Monday for the issue of Saturday following.

Copyright, 1905, by The Class Journal Company.
 Entered at New York, N. Y., as second-class matter.

The Automobile is a consolidation of The Automobile (monthly) and the Motor Review (weekly).

Copies Printed in 1904, - - - 639,300
 " " This Issue, - - - 13,500
 " " Since Jan. 1, - - - 268,500

A Decent Regard for Law.

The recent 1,000 miles non-stop run made by Charles G. Wridgway, driving a 24-horsepower Peerless touring car, on the Brighton Beach track, Coney Island, was a test of a kind that should be encouraged in every way. In such a trial no speed laws are broken and no bitterness is aroused by disregarding the real or imaginary rights of other road users. In this respect the track trial has an immense advantage over the break-neck record runs made on the public highways, in which all speed regulations are deliberately set at defiance, and ordinary travelers looked upon as so many obstructions to high speed, and, therefore, nuisances. Worse still, the manufacturer who sends out a car on a fast road run and then widely advertises what he has done, is sure to arouse a desire in the breast of some amateur owner of a fast car to cover the same route in a shorter time, and with less regard for the speed regulations and for the safety of other road users. This stirring up of a burning anxiety to "better the record" is perhaps the worst feature of the fast road runs, which are now happily falling into disrepute. While the track trial did not, of course, test the car in the same degree as a road test, the ability of the motor to run continuously and well was abundantly proved; and the interchangeability of some, at least, of the parts was

made manifest by the fact that the road wheels were changed at frequent intervals and with very little delay.

While the human equation cannot be said to have much to do with the enduring qualities of the car, it formed an interesting feature of this trial; for it was no small feat to guide a car continuously for nearly twenty-six hours, a thousand times around a track upon which constant attention to the steering was necessary. It is doubtful if the feat could have been accomplished if the motor had required much "coddling" to keep it going.

If track tests of this kind become popular with manufacturers to the extent of bringing about the abandonment of wild-cat scrambles over public roads, the industry as a whole will profit in many ways, and the buying public will gain confidence in the manufacturers because the tests will be open to the closest public scrutiny—an impossibility in the road test, where only the occupants of the car know what transpires between the start and the finish of the alleged run.



Constitutionality of Auto Legislation.

In the minds of many law-abiding automobilists there have existed serious doubts as to the constitutionality of the automobile laws as now carried on the statute books of several states, and these doubts have found expression from time to time in writings and verbal opinion. Such discussions, naturally, have been of an academic character and have not been effective in causing the average uninformed or prejudiced legislator to pause in his campaign of regulation. A more serious effort toward this end is now being made by the National Association of Automobile Manufacturers, which has arranged to have a test case of the New Jersey law carried, if possible, step by step, to the highest tribunal in the land—the United States Supreme Court. A fund of \$5,000 has been set aside to meet the costs of litigation. It is hoped that a decision on the main issue will ultimately be reached and that the case will not be pettifogged into obscurity by technicalities. As the New Jersey law has generally been considered liberal in its provisions, and as it bears a great similarity fundamentally to the laws enacted in other states, it is believed that a decision in this case will be broad enough to cover the situation in less favored sections.

Almost at the same time as the intention of the N. A. A. M. committee is announced there comes to hand a most interesting legal opinion on the same subject by the Attorney General of Wisconsin.

A compromise measure was agreed upon in the State Legislature, which provided for the registration of automobiles with the Secretary of State on payment of a \$2 license fee, and the carrying of an official number plate with three-inch numerals. The bill also contained the usual speed regula-

tions. In his opinion the Attorney General declares that the proposed law is unconstitutional except and only in the provisions that are in the nature of police regulations. He has been guided, of course, in reaching this opinion by the limitations of the state constitution as well as by the Constitution of the United States, and takes as his premises that the law has been proposed not as a revenue measure, but as a state exercise of police power. Quoting an authority, he says: "The use of the public streets of a city is not a privilege, but a right."

It is without the limits of space here to quote the opinion at length, but some of the chief points warrant special attention.

The act, he points out, does not contemplate the licensing of a business or profession, nor does it grant a privilege not common to all people, nor does it consider skill in operation, but levies a tax on the vehicle itself, and imposes numbering, which is not required of other private users of roads. The license exacted for vehicles used by a common carrier is an occupation license and not one for the use of the streets. A license is a privilege granted by the state, and "to constitute a privilege the grant must confer authority to do something which without the grant would be illegal."

Manifestly, and, we believe, rightfully, the Wisconsin lawyer holds that the automobile owner has an inalienable right to drive his machine on the highway, and, consequently, it is not in the power of the state to abridge his right nor to convert that right into a privilege. He holds that the levy of a tax or license fee of \$2 amounts to double taxation, as automobiles are personal property and taxable as such, and is, therefore, unconstitutional under the uniform tax rule of Wisconsin.

Another unconstitutional feature is found in the imposition of burdens on the automobilist from which other road users are free. Traction engines, threshing machines, fire department teams, bicycles, are cited as examples of traffic equally dangerous to the public as automobiles, and yet exempt from the licensing law.

An immediate effect of the opinion is that the Governor of Wisconsin will not sign the bill. Its influence will go further afield as a temperate discussion by a disinterested authority of a topic that too often appeals to prejudice rather than reason.



Suggestions for a Club Outing.

The very enjoyable experience run of the mechanical branch of the Selden association reported elsewhere in this issue suggests a novel and instructive form of outdoor entertainment for an automobile club. The principal purpose of the run referred to was to give each person participating an opportunity to cover several miles of road in many different types and sizes of cars during the run of about sixty miles.

With some modification and with the co-

operation of the local dealers such a run could be easily worked up in a city club, and would do more to develop a fraternal spirit than half a dozen ordinary club runs. Details of such an experience outing are simple enough. The number of cars and the course decided upon, the next thing is to ascertain the seating capacity and then see that the number of participants does not exceed this to the point of discomfort. Transfer stations can be readily selected, and, in case of club outings, preferable at some pretty or interesting spot, where a few minutes for sightseeing and hobnobbing can be enjoyed. Each person in the run would be provided with a little lapel numbered badge, and the cars would be numbered also; corresponding numbers and names being on the program. With this information in hand before the run, the club committee could readily arrange the schedule of transfers, which would also be included in the printed program for each participant. Of course, there should be some proportion between the number and types of cars, and the number of transfer points, so that the members and their friends could get as great a variety of experience as possible.

The co-operation of local dealers in providing drivers, or extra ears, to fill in gaps, a skilled mechanic or two, and a kit of tools in a repair car, could, no doubt, be readily secured. At a subsequent dinner or experience meeting, an exchange of opinions on the performance of cars would give a chance for informing discussion. It is certainly a variant on the ordinary club run that is worth trying.



The opening of the automobile racing season in the East on Saturday last at Brighton Beach was not a promising occasion. True, it was early in the year for a seaside resort, and the track is notably a poor one. Yet the program, even under these unfavorable conditions, was of a sort not likely to stimulate public interest—especially the hippodrome handicaps. It is to be hoped that the general looseness of the management there observable will not be characteristic of later meetings. The crowding of unauthorized persons into the judges' stand enclosure and onto the course, and the arguments between competitors on the track and officials in the judges' stand do not make for good sportsmanship. The automobile is yet on its good behavior, and it is imperative that the proprieties, as observed at horse racing meetings for example, be not ignored at automobile events. It is distinctly up to the metropolitan managers to set a good example.

Automobilists of Southern France are planning a celebration in honor of the sixth anniversary of the first automobile road race held in France—the Bordeaux-Biarritz road race—which was run October 1, 1899, and won by Thery, in a three-horse power Decauville voiturette.

TEST CASE UNDER JERSEY LICENSE LAW.

Legal Attempt to Prove Automobile Registration Provisions Unconstitutional to Be Made at Once by N.A.A.M.—Proposed New Freight Arrangement—Shows of 1906 Discussed.

Arrangements have been made by a committee of the National Association of Automobile Manufacturers to commence a case at once in New Jersey to test the constitutionality of the law requiring the registration of automobiles. The committee reported that it had decided to make the test under the New Jersey law (presumably the new law that goes into effect June 1, 1905). It will be easier to force a decision on the main issue instead of on some merely technical point that proves an unsatisfactory victory, because the New Jersey law is free from a number of petty objectionable features common to other laws of its character. The New Jersey law is considered in all respects reasonably liberal, and before deciding to make the test under it the committee considered both the New York and Pennsylvania laws; but because of the understanding with the New York Assembly that the law of 1904 should be given a thorough trial, it was considered unwise to bring a test case under it, and Pennsylvania was discarded because the present state law will be succeeded January 1, 1906, by the new law, and the interval will not give sufficient time in which to secure a decision on the point at issue.

At the same monthly meeting of the N. A. A. M. executive committee last week, at which the committee reported its decision as detailed above, the committee on freight and passenger transportation reported that it had prepared a new plan of campaign to secure a modification of the present freight classification, and that it will try to effect an arrangement with the Passenger Association whereby automobiles may be carried as baggage, as the paraphernalia of theatrical companies is now carried; that is, a party or troupe buying ten full-fare tickets is entitled to one baggage car that is hauled at the rate of fifteen cents a mile. If a similar arrangement could be made for automobiles, a party going, say from Cleveland to Florida, would be entitled to a baggage car that would carry several automobiles, at a rate of about \$150. The present rate is between \$500 and \$600.

Local shows were discussed at considerable length. The show committee was given certain instructions which will lead to definite action at the June meeting. The Chicago show will be held at the Coliseum, as usual, during the week corresponding with that of this year, February 3 to 10. Two weeks will elapse between the show at Madison Square Garden and that at Chicago, as heretofore.

J. D. Chappell was elected to membership as a representative of the Woods Motor Vehicle Co., in place of J. Wesley Allison, who has retired from that concern. The vacancy on the executive committee caused by Mr. Allison's retirement was filled by the election of M. I. Brook, of the Autocar Company.

The resignation of the McKinnon Dash Company was accepted.

The association decided to contribute \$1,000 to help defray the expenses of the Chicago Automobile Club in connection with the club's automobile bill now before the Illinois Legislature, and donated \$500 to the committee in charge of the movement designed to secure a repeal of the tax on denatured alcohol.

The next meeting will be held on Tuesday, June 6, having been advanced one day so that it may not conflict with Orphans' Day.

ST. LOUIS RACE MEET.

Webb Defeats Oldfield and Kiser in Three-Cornered Event.

Special Correspondence.

ST. LOUIS, May 8.—A. C. Webb defeated Barney Oldfield and Earl Kiser in two heats of the triangular automobile match race yesterday at the Delmar race track. The races were handicaps, owing to the fact that Webb's and Kiser's racing machines were delayed in shipment, compelling them to use stock cars. More than 6,000 persons witnessed the contest.

The track is located just outside the city limits, and much excitement was caused by raids made by the county officials upon chauffeurs who were without county licenses. Eight citizens who drove their own machines were arrested. An attempt was made to take charge of Oldfield's car, but his manager interfered.

Owing to heavy rain the track was in bad condition, making fast time impossible. Oldfield's best mile was made in 1:24.

It appeared strange that the light cars used by Kiser and Webb should beat Oldfield in his racer, but the handicaps, the bad condition of the track and Oldfield's slow start made it possible for the others to gain an advantage he could not overcome.

The first event was for one-cylinder cars at three miles. It was won by Ed Gadsley, with Jesse French second. In the two-mile event for the National cars, Otis Barnett won, with Ed Ernest second and H. Vrooman third.

Four started in the four-cylinder stock car event, which was won by Leathers in a White, with Carr, in a Packard, second, and Ellison, in a St. Louis, third.

Carr, in a Packard, won the event for stripped stock cars.

The following are the summaries: One-cylinder cars, three miles—Ed Gadsley, first; Jesse French, second. Time, 7:45 2-5.

National cars, two miles—Otis Barnett, first; Ed Ernest, second; H. Vrooman, third. Time, 4:56 4-5.

Four-cylinder stock cars, two miles—Leathers, first; Carr, second; Ellison, third. Time, 3:49 1-2.

Stripped cars, three miles—Webb, first; Carr, second; Leathers, third. Time, 4:35 2-5.

Match race, three-mile handicap—First heat: Webb, fifteen seconds, first; Oldfield, scratch, second; Kiser, 30 seconds, third. Time, 4:56 4-5.

Second heat, two-mile handicap—Oldfield, scratch, first; Kiser, 30 seconds, second; Webb, 15 seconds, third. Time, 2:58.

Third heat, two-mile handicap—Kiser, 30 seconds, first; Oldfield, scratch, second; Webb, 15 seconds, third. Time, 3:31.

Fourth heat, two-mile handicap—Webb, 15 seconds, first; Oldfield, scratch, second; Kiser, 30 seconds, third. Time, 3:06.

Farmers along the Southington Road, between Waterbury and Meriden, Conn., have hit upon a novel method of bothering "them pesky automobile fellers." They secured a large supply of vitrified cinders, mixed in a generous quantity of metal scrap and spread this "rough on autos" liberally along the road. It cuts auto tires like a knife. Mayor John P. Elton, secretary of the American Brass Company, was coolly informed when he protested that "this slag makes the best fillin' for ruts in the road that ever was."—*Oswego (N. Y.) Times.*

PLANS FOR CHICAGO MEET.

Special Arrangements at Harlem Track for Three Days' Events.

Special Correspondence.

CHICAGO, May 6.—Several improvements will be made in the Harlem track this year and it will be put in first-class condition for record breaking at the meeting to be held May 28, 29 and 30, by the Chicago A. C. Ample garage facilities will be provided, and every effort will be made to care for the automobilists as well as for those who go by train and street cars. The Chicago & Oak Park elevated railroad will run special trains every two minutes going to the races, and will have plenty of cars to carry the crowds away quickly in the evening.

In order to render the spectators absolutely safe, a wire fence will be placed between the grandstand and track twenty feet back of the track fence, and no persons except track officials will be allowed inside this inclosure. The Harlem track will be thrown open to the drivers at once, so there will be plenty of opportunity to try out their machines before the races.

The attractions already secured will make this meet the biggest event of the kind ever given in Chicago. Oldfield will have his *Green Dragon* here and will enter it in all races in which it is eligible, and will also drive exhibition miles against time every day. Carl Fisher, who made the two-mile middleweight record at Harlem last year, will have a six-cylinder and an eight-cylinder *Premier Comet*; Henry Ford will have his Ford eight-cylinder racer, which will be used in the Harold E. Thomas Inter-Club Trophy race. Col. E. H. R. Green, of Texas, and a member of the Chicago Automobile Club, has entered two Franklin cars and the Packard *Gray Wolf*. Colonel Green will be one of the Chicago Automobile Club representatives in the Thomas cup race.

RACES AT MILWAUKEE.

Local Club Planning Two-Day Meet for June 2 and 3.

Special Correspondence.

MILWAUKEE, May 6.—If the track at the State Fair Grounds can be secured an automobile race meet will be held here on July 2 and 3 under the auspices of the Milwaukee Automobile Club, and if present plans materialize an automobile parade will precede the races.

An effort is being made to have Barney Oldfield appear at this event. William H. Pickens, his manager, was in the city yesterday, making preliminary arrangements for the meet, and was entertained by James T. Drought, secretary of the local club. Oldfield is scheduled to race at Chicago on May 27, 29 and 30, and, as Milwaukeeans have never been given an opportunity to witness a professional race, it is safe to predict that if Oldfield follows his Chicago engagement with an appearance in this city the coming meet will be a success.

The list of events will be announced later, and will include a number of amateur contests calculated to stimulate local interest.

BOAT RACES ON THE DELAWARE.

Special Correspondence.

PHILADELPHIA, May 9.—With the increase in the number of motor boats owned hereabouts, agitation for a series of races is becoming widespread. Already there is a movement on foot to form a motor-boat

club, and as the Schuylkill affords few facilities for the sport by reason of the many dams in the stream, the upper Delaware is likely to witness several motor boat regattas during the summer.

At Riverport, where interest in the sport is at fever heat, all the fast boats, including the winners in the several classes in last year's regatta, are being tuned up for approaching contests. It is proposed to have a series of motor boat races in connection with the annual Fourth of July Regatta of the Riverport Yacht Club, and later in the same month the regular meet under the auspices of the American Motor Boat League, will be held.

COURT'S OPINION ADVERSE.

Upholds Company Prohibiting Use of Turnpike by Automobiles.

Special Correspondence.

PHILADELPHIA, May 8.—If a decision handed down by Judge Wheaton at Wilkesbarre to-day, in the case of Bertels vs. Laurel Run Turnpike Company, is allowed to stand unchallenged, the automobilists of that city will be deprived of the use of one of the most beautiful drives in the city, and a precedent established which may work to the future detriment of motoring enthusiasts in all sections of the state.

It appears that the company prohibited automobilists from using the turnpike, which is a famous boulevard a short distance from Wilkesbarre, and in order to test its authority, Charles E. Bertels, a local machine owner, petitioned the court for a mandamus compelling the company to allow him to operate his machine on the turnpike. To say that the automobilists were surprised when the judge handed down an adverse opinion is putting it mildly. A meeting is to be called within the next fortnight to secure funds to carry the case higher. The main points in Judge Wheaton's opinion are as follows:

"The managers of highways owned by private corporations have an undoubted right, in the exercise of a sound discretion, to prevent such use of the highway as will make it dangerous to the general public. Unless forbidden by legislative enactment, as in the case of bicycles, they may exclude from its highway a carriage or vehicle the use of which is dangerous, where the safety of the general public demands such exclusion.

"The petitioner admits that automobiles, by reason of their size, great speed—rivaling the velocity of railroad trains—and alarming noise, are extremely dangerous to the traveling public, and their use on public highways is fraught with great danger to travelers who drive horses. *The said turnpike was designed and constructed expressly for the convenience and pleasure of people driving with horses over the same, and that safety to the general public peremptorily demands the exclusion of automobiles from the turnpike.*

"There is no rate of toll for automobiles fixed by statute, nor does any appear to have been established by rule or regulation of the turnpike company. The demurrer is overruled, and prayer for peremptory writ is refused."

As the Laurel Run Turnpike Company was incorporated under the same law as that under which many similar companies now in existence in the state are working, the possibilities of trouble to automobilists is apparent.

It is not unlikely that the decision will result in a quickening of the preparations now in progress looking to the formation of a state automobile organization.

WORCESTER HILL CLIMB.

Date Changed to Thursday, May 25.—List of Events.

Special Correspondence.

WORCESTER, MASS., May 8.—The committee appointed at a recent meeting of the A. C. of Worcester to arrange for a hill-climbing contest to take place in this vicinity acted rather prematurely in announcing that the climb would take place on Paxton hill. It now appears that permission to use this hill has not been secured, and it is doubtful if the township officials would consent to its use for such a purpose. At a meeting of the club held last Tuesday night it was decided to abandon the idea of using the Paxton hill, and announced that the contest would take place on Dead Horse hill. The date of the climb has been changed from May 13 to Thursday, May 25.

Ex-President Asa Goddard, who has been appointed general manager of the meet, and who will direct the entire affair, has announced the program for the afternoon's sport.

Following is the list of events:

Stock steam cars, all prices.

Stock gasoline cars, list price \$850 and less.

Stock gasoline cars, \$850 to \$1,250.

Stock gasoline cars, list price more than \$1,250 and not exceeding \$2,000.

Stock gasoline cars, listing at more than \$2,000 and not exceeding \$3,000.

Stock gasoline cars, listing at more than \$3,000 and not exceeding \$5,000.

Stock gasoline cars listing at more than \$5,000.

Cars weighing from 1,432 to 2,204 lbs.

Cars weighing from 851 to 1,432 lbs.

Cars weighing from 551 to 851 lbs.

Free-for-all.

In the stock events cars must be equipped as per catalogue specifications.

In second and third events each car must carry two passengers, with or without tonneau. In the fourth, fifth and sixth events each car must carry four passengers of an average weight of not less than 150 pounds each.

The climb will be held under the sanction and rules of the A. A. A. An entry fee of \$5 is charged, and the entries will close on May 21 with Asa Goddard, manager, Worcester, Mass.

TRAPS FOR AUTOMOBILISTS.

Special Correspondence.

PHILADELPHIA, May 8.—The suburban constables are working a new game on the unsuspecting Quaker automobilist. They travel in pairs and haunt any one of several measured quarter or half-mile stretches. One man stands at the start, the other at the finish. When the car crosses the starting line the "cop" drops his handkerchief, the minion of the law at the other end starting his watch at the same instant. As the course selected for the trap is usually downhill the automobilist almost invariably covers the distance in less than the time limit. Then follows the hold-up, the magistrate and the fine—the latter the main objective. When they get that the victim is released.

Lower Merion township alone gathered in \$130 last month. The Automobile Club of Philadelphia is doing all it can to let motorists know the location of these traps, but the townships' treasuries are waxing fatter daily.

Nearly forty licenses have already been issued by the city clerk.—*Madison (Wis.) Democrat.*



ROE'S INJURIES FATAL.

Prominent Club Member and Dealer—
A.C. of Buffalo Escorts Remains.

Special Correspondence.

BUFFALO, N. Y., May 9.—Charles W. Roe, one of the foremost automobilists of this city, died about noon on Saturday, at the Emergency Hospital, where he was taken after sustaining fatal injuries in an automobile accident early last Wednesday morning. Mr. Roe, accompanied by C. D. Roelf, of Rochester; Mrs. Pearl, of High street, Buffalo, and another woman, was driving his big touring car down Main street at a fair rate of speed. In attempting to get into the trolley car track the automobile swerved too quickly and upset. The occupants were thrown forcibly to the pavement but fortunately the car did not fall on them. Mr. Roe struck on his head and was rendered unconscious. Mrs. Pearl was badly bruised about the face and arms, but not seriously injured. Both were taken to the hospital, where Mr. Roe's condition became worse, and he died on Saturday.

Mr. Roe was about 40 years old and is survived by his wife. He was an active member of the Automobile Club of Buffalo, and was secretary of the Buffalo Automobile Trade Association. About five years ago he established the Roe Automobile Company, which business he carried on successfully until his death.

The body was taken to Toledo, Ohio, last night for burial. Twenty automobiles, containing members of the automobile club and the trade association, accompanied the remains to the depot. At a special meeting of the club yesterday, resolutions of regret and sympathy were passed and forwarded to Mrs. Roe.

WATERTOWN CLUB PLANS.

Weekly Runs Feature of Summer Season
—Orphans' Day June 7.

Special Correspondence.

WATERTOWN, N. Y., May 6.—The Automobile Club of Watertown, organized only a short time ago, is thriving. It has decided to adopt the suggestion of the New York Motor Club, and have June 7 observed as Orphans' Day. President L. G. DeCant states that the Watertown club is heartily in favor of the plan.

At a meeting, held last week, it was decided to hold club runs every Friday, C. W. Gray and C. A. White being appointed to act with the marshal in promoting them. The club will communicate with the state's engineering staff with regard to the condition of the state macadam roads, which did not stand the winter very well.

Plans were discussed for a run on May 14, crossing from Cape Vincent to Kingston, Can., thence to Toronto, Niagara, and east to Watertown. The trip will take a week. The Syracuse club will be invited to participate.

WORCESTER CLUB ELECTION.

Special Correspondence.

WORCESTER, MASS., May 8.—The A. C. of Worcester held its regular monthly meeting last Tuesday night in the Bay State House, its official headquarters, and the following officers were elected:

President, John P. Coughlan; vice-president, Daniel F. Gay; secretary, Frederick E. Frost; treasurer, W. N. Stark; board of governors, B. Austin Coates, M. P. Whittall, George D. Webb, A. H. Inman, Alfred Thomas, Asa Goddard and J. G. Prouty.

President Coughlan immediately took up the duties of his office, and appointed the following committees: Membership—F. E. Frost, B. A. Coates and W. N. Stark; runs and tours—M. P. Whittall, A. H. Inman and Alfred Thomas; laws—Daniel F. Gay, J. P. Coughlan and Asa Goddard; roads—G. O. Draper, Asa Goddard and Leonard Bill.

Asa Goddard, the retiring president, was presented with a purse of gold by B. Austin Coates on behalf of the members of the club.

NEWS NOTES OF THE CLUBS.

NEW YORK.—Another chauffeur's club has been formed in this city, with quarters at 1775 Broadway, between Fifty-seventh and Fifty-eighth streets. About one hundred professional chauffeurs have been admitted to membership. The present officers of the club are: V. Koch, president; J. Winkelman, secretary, and E. Striker, treasurer, and meetings are held weekly on Monday night.

PHILADELPHIA.—The Automobile Club of Philadelphia has joined forces with the local police authorities in an effort to break up scorching on South Broad street. Several recent accidents have aroused quite an anti-automobile sentiment in that section, and the club has placed four cars at the service of the Department of Public Safety and are patrolling the thoroughfare after nightfall, when the scorchers seem to be particularly active.

SYRACUSE, N. Y.—The A. C. of Syracuse is planning to hold two runs each month during the summer. The Cicero plank road, a favorite thoroughfare for drivers, is to be scraped and put in condition at once. The runs and tours committee consists of H. W. Smith, chairman; C. A. Benjamin and H. K. Brown. The club members are having their troubles. They have run the gauntlet of sticks, stones and brickbats, but the latest eclipses even these. Hoodlums gather in the sequestered districts of the city and bombard passing cars with fire balls. Strings of paper are wadded up to the size of baseballs, set afire and thrown into passing autos. A decoy vehicle was sent out the other day and officers chased the hoodlums, but without result. The authorities, however, are on the alert for the young vagabonds.

COLUMBUS, OHIO.—At the annual meeting of the Columbus Automobile Club the following officers were unanimously elected for the ensuing year: President, Dr. Clovis M. Taylor; vice-president, William Neil; treasurer, E. W. Seeds; secretary, Dr. C. A. Howell; C. E. Firestone, Roy Repp and Byron Ellis were appointed a committee on club runs and local contests. The proposed meet for July 3 and 4 was discussed and progress reported by the several committees. The club is in splendid financial condition and has a promising future. It is now occupying its new quarters, which were dedicated two weeks ago. The rooms are graced with some of the furniture which was used in the Ohio building at the St. Louis Exposition. In the near future a

club run and luncheon will be given and also a hill-climbing contest between local cars. Since the organization of the club interest in automobiling has greatly increased in this city.

DENVER.—Active steps are now being taken by the newly organized Denver Automobile Club to boom the racing game in this city. A movement is on foot to establish a race track, and secure country quarters for the organization. The proposed track will be centrally located, and will cost between \$15,000 and \$20,000. Several sites have been submitted for the consideration of the club, but as yet none of them has been definitely agreed upon. The necessary funds are in hand to establish the country club, and the only thing now interfering with the plan is the choosing of a site on which to build.

RUN DOWN BY TRAIN.

An automobile accident in which four persons narrowly escaped death occurred at a Pennsylvania Railroad crossing at Iselin, N. J., early on the morning of May 9. Major Willard C. Fisk, his wife, his son, Clinton E. Fisk, and George E. Blakeslee, a dealer in automobiles, all residents of Jersey City, were en route from Philadelphia to Jersey City in a 20-horsepower Orient car which Major Fisk had just purchased. Blakeslee, through whom the purchase had been made, was driving; Major Fisk was beside him; and Mrs. Fisk and her son were in the tonneau, the former half asleep. It was about one o'clock when the crossing was approached. The road runs parallel to the track up to the crossing, where it curves sharply and crosses the tracks; a low tree and a small building prevented the occupants of the car from seeing the approaching train. The driver heard no sounds, but as a matter of precaution reduced the speed of the car and proceeded to cross. When almost on the track he saw the glare of the rapidly approaching headlight, and instantly jammed on the emergency brake, stopping the car with the front wheels well across the near rail, and shouted to the others to jump. Major Fisk and his son leaped out and tried to pull the car back off the track; but the brake was set hard and the car was of course immovable. Blakeslee seized Mrs. Fisk, who was standing in the tonneau in a dazed condition, and had almost succeeded in rescuing her from her perilous position when the locomotive struck the automobile. Blakeslee and Mrs. Fisk were thrown a considerable distance into the hard road, Mrs. Fisk breaking an arm and a leg, in addition to other injuries consequent upon the severe concussion; and Blakeslee was bruised and cut, though not seriously hurt. Both were rendered unconscious. Major Fisk and his son were not injured.

The automobile was hurled against a freight car standing on a siding, and the new machine was completely wrecked. Mrs. Fisk was taken to a farmhouse, where her fractures were set by a physician hastily summoned by telephone, and later was taken to her home in Jersey City, where she is now on the road to recovery. Blakeslee was able to go to his home in Jersey City after his wounds were dressed. It is said that the crossing was unguarded, there being no watchman in sight; and that though there were gates, they were not closed on the approach of the train.

The pet dog belonging to the Anderson children was an automobile victim yesterday. The dog rushed at A. F. Rowley's auto and stopped so suddenly it turned a complete summerset, landing under the wheels.—DeKalb (Ill.) Chronicle.

AUTOS AT RAILWAY SHOW.

Many Exhibitors from Automobile Trade. Gasoline Inspection Cars.

Special Correspondence.

WASHINGTON, May 8.—The American Railway Appliance Exhibition, now being held on the Washington Monument grounds, is one of the features of the seventh session of the International Railway Congress. Nearly 400 exhibitors make up the big show, which was opened May 3 with imposing ceremonies, and which will close May 13. In the main exhibition hall the Railway Appliances Co., of Chicago, are showing two models of the familiar Oldsmobile railway inspection car. Many foreign railway men in attendance have evinced a lively interest in this tremendous improvement over the old style handcar and numerous orders have been booked.

Fairbanks, Morse & Co., of Chicago, have a large block of space on the grounds, where are shown six different types of gasoline track inspection cars. Around their booth has been laid a railroad track on which a large automobile is operated, while on the floor of the booth the other models are exhibited.

A number of automobile tire manufacturers are represented with large exhibits of rubber goods, including the Diamond Rubber Co., Hartford Rubber Works Co., New York Belting and Packing Co., and Peerless Rubber Co. The Merrill-Stevens Manufacturing Co., of Kalamazoo, exhibits jacks of various sizes. Other exhibitors well known in the automobile trade are S. F. Bowser & Co., underground gasoline tanks; Aurora Automatic Machinery Co., Electric Storage Battery Co., and Edison Manufacturing Co.

AUTO RAILWAY SERVICE IN UTAH.

Special Correspondence.

DENVER, May 6.—C. O. Baxter, general manager of the Utah Railroad in Utah, who has been in Denver purchasing equipment for his road, has bought three track automobiles. He will operate an automobile service as an extension of the railroad from Dragon to Vernal, and will use the flanged-wheeled autos on the railroad tracks between Mack and Dragon.

The automobiles are provided with broad canopy tops and side seats, and will alternate with the trains of railway cars. Each vehicle will carry fifteen or sixteen passengers.

Mr. Baxter also announces that his company will expend about \$35,000 in improving the wagon road to Fort DuChesne on which an automobile service will be maintained without tracks.

AUTOMOBILE REGISTER AND GUIDE.

Under the title of "The New York Official Automobile Register and Tourists' Guide," the Hall Publishing Company, 150 Nassau street, New York, issues a book of 360 pages, of suitable size for the pocket, which contains a complete list of the names and addresses of owners of automobiles registered with the Secretary of State and other information especially useful for the tourist. The list of registered owners gives the registration numbers of the cars and in most cases the name of the vehicle. The highest registration number is 16,154. Since the book was issued, however, this total has been increased more than 1,000, as applications were received at the rate of about forty a day during April.

Besides the register of owners, which

occupies 260 pages, the book contains a "tourists' guide," which gives the names of the leading hotels in the cities and towns of the State, together with the rate per day, the population of the town, and other useful information, such as the name of a first-class garage or repair shop in each. Detailed instructions are given for forty-one touring routes, mostly starting from New York City, followed by a directory of foreign and domestic automobile clubs and associations, with the names and addresses of the secretaries.

The New York State registration and speed law of 1904 is printed in full; also the bill to amend the national law so as to permit automobiles to be driven onto and off of ferry boats under their own power, and the United States customs regulations affecting the entry of tourists' cars. The book concludes with a list of supply, repair and charging stations in New York City and Brooklyn; charging stations in New Jersey and Connecticut, and a brief directory of manufacturers and New York State dealers.

AUTO SCHOOL FOR BUFFALO.

The establishment of an automobile school in Buffalo, open to chauffeurs and owners, is assured through an appropriation for this purpose made by E. R. Thomas, president of the E. R. Thomas Motor Company, of that city.

A suitable building will be leased and equipped with the necessary appliances; several test cars and a full complement of parts will be kept on hand for the use of the students, and skilled men from the Thomas factory will act as instructors. The regular course of instruction will consist of three weeks' work, as follows: First week, use and names of tools; second week, filing and fitting of small parts; third week, road work, driving and road repairing.

The school will be conducted under strict rules, such as govern the average body of college students of to-day, and, in addition to the practical work of the course, a number of lectures will be given.

The school will open on July 3. A small charge will be made for tuition, and the institution is expected to be self-supporting.

POPE'S NEW YORK AUTO SCHOOL.

In order to provide competent drivers for its cars the Pope Motor Car Company has decided to establish a school of instruction in the care and operation of automobiles at its New York garage, Broadway and Fifty-fifth street. Instructors from the several Pope factories will be in charge, and frequent lectures and demonstrations will be given covering the several types of vehicles manufactured by the company. A nominal fee will be charged with a view to keeping out undesirable persons.

The idea was suggested to the officials of the company by Robert E. Fulton, assistant manager of the New York establishment, and they quickly endorsed the plan. The school will be put in operation at once.

MATHESON MAY MOVE.

Special Correspondence.

SPRINGFIELD, MASS., May 9.—The Matheson Motor Car Co., of Holyoke, was represented in the meeting of the Springfield Board of Trade to-night. The statement was made that the company intends to largely increase its capacity and its capital stock, and will remove to this city if a suitable location can be secured and it is found to be advantageous in other respects. It was the wish of the company's representatives that the board assist it in locating

here. A committee of the Board of Trade was appointed to investigate and report at the earliest date possible.

NEWS AND TRADE MISCELLANY.

The Automobile Club of Worcester, Mass., has set aside June 7 as an annual Orphans' Day.

E. R. Brown has secured the agency for Cuba for the Queen automobiles, and opened salesrooms at Zulueta 28, Havana.

Gray & Davis, of Amesbury, Mass., have secured patents in Great Britain for their well-known Bullet lamps.

The Automobile Equipment Co., of Detroit, is now occupying its new building on Jefferson avenue, across the street from its former quarters.

The assembling plant of the Buick Motor Company, now located at Jackson, Mich., will at an early date be removed to Flint, Mich., the company desiring to concentrate all departments at the latter place.

The Exhibition Committee of the Automobile Club of America has decided to call a meeting of all parties interested in its proposed automobile show, to be held in New York next winter, when the dates for the show and available buildings for the purpose will be considered. The date of the meeting will be announced in a few days.

A branch store of the Hartford Rubber Works Company has been established at 2355 Jerome avenue, between 183d and 184th streets, New York. The company announces that this store will carry a full line of tires, is equipped for repair work, and will be kept open daily, including Sundays, until 9 o'clock p. m.

The unusual feat of climbing the Lewiston hill, near Buffalo, was recently accomplished by J. A. Cramer, who, as a result of a wager, drove a Premier car up the hill on its high gear. A number of persons prominent in the trade witnessed the performance. Mr. Cramer is Buffalo agent for the Premier machines.

The site known as the old Peninsular Iron Furnace property on Jefferson avenue, Detroit, has been selected for the new factory of Morgan and Wright. The plot contains six acres, and has a frontage on the Detroit river. Work will be commenced at once, and the plant will be up-to-date in every particular.

In addition to its racing cars entered for the Gordon Bennett and Vanderbilt cup races, the Pope Motor Car Company is now building two Pope-Toledos especially for track racing, which it will enter in the various meets throughout the country during this season. The machines are expected to be ready in time for the Chicago meet on May 27-30, after which they will be sent East for the Morris Park races on June 10.

The Wayne Automobile Company, of Detroit, announces the establishment of the following agencies for the sale of its product: Charles Stein, Akron, O.; W. G. Alexander, 116 Tenth street, Toledo; Stepanek and Vandisek Hardware Co., Cedar Rapids, Ia.; C. T. Stewart, Council Bluffs, Ia.; Brodie Electric Co., Manchester, N. H., and the Caswell Automobile Co., 96 Moody street, Lowell, Mass.

The National Association of Engine and Boat Manufacturers has decided to hold a motor boat carnival on September 4, 6 and 9. The location of headquarters has not yet been decided upon, but the races will be held on the Hudson River, New York City. Rules for the contests are now being formulated by a committee appointed for the purpose. The events will be open not only to boats of high power, but those for pleasure and business as well.